

19980526.qrp v01_n103.qrs.980526

Date: Tue, 26 May 1998 19:03:24 EDT
From: qrp-l@Lehigh.EDU
To: "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>
Subject: QRP-L digest 1103

QRP-L Digest 1103

Topics covered in this issue include:

- 1) [11748] Source for 14.060 Xtal
by AA3BP <AA3BP@aol.com>
- 2) [11749] NOT FOR SALE ANYMORE.....
by "Malcolm Bussey" <mbussey@gte.net>
- 3) [11750] Re: Sierra Mod for power on high bands
by wb8ygg@juno.com
- 4) [11751] QRP TAContest June 6, 1998
by "Ron Polityka" <wb3aal@talon.net>
- 5) [11752] RE: DC receivers in the news !
by "Bill Meahan" <mwmeahan@rust.net>
- 6) [11753] Re: C3 Intertype
by nilsbull@juno.com (Nils R Young)
- 7) [11754] Re: NC20 testing
by Joe Gervais <vole@primenet.com>
- 8) [11755] Re: C3 Intertype
by hsilver@pyx.net
- 9) [11756] Re: Query about "non-reactive" resistors
by Frank Kienast <fgk@gte.net>
- 10) [11757] Re: C3 Intertype
by Paul Harden <pharden@aoc.nrao.edu>
- 11) [11758] Re: C3 Intertype
by "Walter Dufrain" <walter@inlink.com>
- 12) [11759] QRP TAContest
by "Ken Burrough" <ne0c@1st.net>
- 13) [11760] Help for KC-1
by MSU1972 <MSU1972@aol.com>
- 14) [11761] Non-reactive resistors and the C-3 Intertype
by FrConrad <FrConrad@aol.com>
- 15) [11762] Holiday wishes
by "Steve Hurst" <shurst@magiclink.com>
- 16) [11763] Carrying Case for Sierra
by DYARNES <DYARNES@aol.com>
- 17) [11764] Re: NC20 testing
by Paul Harden <pharden@aoc.nrao.edu>
- 18) [11765] Re: Non-reactive resistors and the C-3 Intertype
by Paul Harden <pharden@aoc.nrao.edu>
- 19) [11766] Computer help...again

- by Jay & Jackie <jayboy@psnw.com>
- 20) [11767] The good old days
by N9DD <N9DD@aol.com>
- 21) [11768] Re: NE602 & NE612 Balanced Output
by K5BDZ <K5BDZ@aol.com>
- 22) [11769] Elmer: Basic building & soldering stuff
by Niel Skousen <nskousen@scientech.com>
- 23) [11770] ELMER:(long) "non-reactive" resistors
by Niel Skousen <nskousen@scientech.com>
- 24) [11771] ELMER: If you must have homework :-)
by Niel Skousen <nskousen@scientech.com>
- 25) [11772] Re: Non-reactive resistors and the C-3 Intertype
by "M. Monninger" <markem@primenet.com>
- 26) [11773] ICOM email address
by Larry Jones <ljones@flash.net>
- 27) [11774] Help needed SST40
by "Peter Zenker DL2FI" <Peter_DL2FI@csi.com>
- 28) [11775] RE: DX Receivers antipararell diodes articles
by "Peter Zenker DL2FI" <Peter_DL2FI@csi.com>
- 29) [11776] Re: Hootowl Report (or lack of)
by w0yse@juno.com (Neil Klagge)
- 30) [11777] Antenna tuner recommendations
by eakwik@mail.hac.com
- 31) [11778] Hoot-Owl Sprint
by Old Radios <old_radios@yahoo.com>
- 32) [11779] Who got fooled?
by "Bryan Turner" <turnerw@email.uah.edu>
- 33) [11780] ignore please
by Bruce Rattray <rattray@gpfn1.gpfn.sk.ca>
- 34) [11781] Re: Pi redefined
by "Brian.Buydens@usask.ca" <buydens@duke.usask.ca>
- 35) [11782] Re: Pi redefined
by "L. B. Cebik" <cebik@utkux.utcc.utk.edu>
- 36) [11783] The SLR Rx- a review (long)
by Steven Weber <kd1jv@moose.ncia.net>
- 37) [11784] Re: [11587] Pi redefined
by Dan Halbert <halbert@bbn.com>
- 38) [11785] Re: The SLR Rx
by "L. B. Cebik" <cebik@utkux.utcc.utk.edu>
- 39) [11786] ELMER 101: Part 5 - What Part 5????
by Dale Scott <dcscott@us.ibm.com>
- 40) [11787] Re: [11587] Pi redefined
by Paula Bailey <pmbail01@ox.slug.louisville.edu>
- 41) [11788] Soil Condx & Ligntning Protection...?
by KB0VCC/1 <kb0vcc@rocketmail.com>
- 42) [11789] Re: [11587] Pi redefined
by "Vincent Ferme" <vferme@sprint.ca>
- 43) [11790] CW Class 101: Ideas Needed

- by kreinbd@ccgate.dl.nec.com (David Kreinberg)
- 44) [11791] Re: Elmer 101: NE612 Balanced Output
by Glen Leinweber <leinwebe@mcmail.CIS.McMaster.CA>
- 45) [11792] Re: Re Receivers -- Get an HQ
by Adrian Weiss <aweiss@usd.edu>
- 46) [11793] Batteries: NiMH worth the extra \$\$
by PGSPersEng <PGSPersEng@aol.com>
- 47) [11794] Re: Antenna tuner recommendations
by "John J. McDonough" <jjmcd@mdn.net>
- 48) [11795] Re: Anyone Using AMECO AC-1 On The Air?
by mstangelo@worldnet.att.net
- 49) [11796] Re: [11587] Pi redefined
by Bob Patten <n4bp@bc.seflin.org>
- 50) [11797] Elmer101: Repost, Part 5, transmit mixer bandpass filter]
by Michael Maiorana <mikemo@ibm.net>
- 51) [11798] Iowa QRP....an update (long)
by John Burnley <JBurnley@ifmc.org>
- 52) [11799] Tube replacements
by Tellefsen Bob-CNSE97 <cns97@lmpsil02.comm.mot.com>
- 53) [11800] RE: DC receivers in the news !
by "Frank G3YCC" <g3ycc@g3ycc.prestel.co.uk>
- 54) [11801] Re: 10w SSB rigs
by "Frank G3YCC" <g3ycc@g3ycc.prestel.co.uk>
- 55) [11802] pi redefined
by Ed Tanton <n4xy@att.net>
- 56) [11803] Re: Rubber crystals
by Tellefsen Bob-CNSE97 <cns97@lmpsil02.comm.mot.com>
- 57) [11804] WE6W-- Hoot Owl numbers.
by Ed Loranger <we6w@qsl.net>
- 58) [11805] Trouble Finding Match Using LDG Tuners
by Sam Billingsley <SBillingsley@usaninc.com>
- 59) [11806] Introducing the "Rainbow Antenna Analyzer"
by "Heron, George" <G.Heron@dialogic.com>
- 60) [11807] RE: DC receivers in the news !
by KC5TJA <kc5tja@topaz.axisinternet.com>
- 61) [11808] Re: Batteries: NiMH worth the extra \$\$
by "Vincent Ferme" <vferme@sprint.ca>
- 62) [11809] Scope & Probes
by John Bohnert <johnb@elmhurst.edu>
- 63) [11810] F.S. OHR-400 & TEK O'Scope
by Joseph Trombino jr <joebarb@wilmington.net>
- 64) [11811] CQ WW WPX CW Contest
by "Dasher, Mark" <DasherM@IRWIN.ARMY.MIL>
- 65) [11812] Petition for Amateur rulemaking now before FCC
by John Foote <w3gx@yahoo.com>
- 66) [11813] Re: Scope & Probes
by Paul Harden <pharden@aoc.nrao.edu>
- 67) [11814] Re: CQ WW WPX CW Contest

- by Hank Kohl K8DD <k8dd@contesting.com>
- 68) [11815] list clutter: Test URL's b4 post
by "rohre" <rohre@arlut.utexas.edu>
- 69) [11816] Program for laying-out perf board?
by "Karty, Steven" <kartys@ncs.gov>
- 70) [11817] Hootowls lack Royal lineage
by MNHopkins <MNHopkins@aol.com>
- 71) [11818] Re: Scope & Probes
by "Alan Slusher" <aslusher@erols.com>
- 72) [11819] List of 10 watt SSB rigs
by Zack Lau <zlau@arrl.org>
- 73) [11820] 10w rigs
by "Frank G3YCC" <g3ycc@g3ycc.prestel.co.uk>
- 74) [11821] FD/Hotel Camping
by mike@krypton.nmr.Hawaii.Edu (Mike W. Burger)
- 75) [11822] Re: Batteries: NiMH worth the extra \$\$
by "J. Skalski" <jskalski@acsu.buffalo.edu>
- 76) [11823] High Voltage QRP Spiral Loop Antenna!/WE6W {LONG}
by Ed Loranger <we6w@qsl.net>

Date: Mon, 25 May 1998 19:06:34 EDT
From: AA3BP <AA3BP@aol.com>
To: qrp-1@Lehigh.EDU
Cc: AA3BP@aol.com
Subject: [11748] Source for 14.060 Xtal
Message-ID: <66599fc3.3569f97c@aol.com>
Mime-Version: 1.0
Content-type: text/plain; charset=US-ASCII
Content-transfer-encoding: 7bit

I'm looking for a 14.060 fundamental xtal or any other 14 mhz frequency in the cw band. Does anyone have one in the junk box they'd like to sell? Suggestions re: QRP vendor sources for same? (Dan's Parts rumored to be out of stock),

Tnx,

Jim, AA3BP

Date: Mon, 25 May 1998 18:43:49 -0500
From: "Malcolm Bussey" <mbussey@gte.net>
To: <qrp-1@Lehigh.EDU>

Subject: [11749] NOT FOR SALE ANYMORE.....
Message-ID: <01bd8836\$f7814e60\$b477fed0@MalcolmBussey>
MIME-Version: 1.0
Content-Type: multipart/alternative;
boundary="-----_NextPart_000_004A_01BD880D.0EAB4660"

This is a multi-part message in MIME format.

-----=_NextPart_000_004A_01BD880D.0EAB4660
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: quoted-printable

Just to let you guys know----- The OHR-400 was sold to =
the first person to respond. Then, there were several more folks that =
showed interest. Thanks to all who sent me e-mail.

73,
Malcolm Bussey

-----=_NextPart_000_004A_01BD880D.0EAB4660
Content-Type: text/html;
charset="iso-8859-1"
Content-Transfer-Encoding: quoted-printable

<!DOCTYPE HTML PUBLIC "-//W3C//DTD W3 HTML//EN">
<HTML>
<HEAD>

<META content=3Dtext/html; charset=3Diso-8859-1 =
http-equiv=3DContent-Type>
<META content=3D'"MSHTML 4.71.1712.3"' name=3DGENERATOR>
</HEAD>

<BODY bgColor=3D#ffffff>
<DIV>Just to let you guys know----- The =
OHR-400 was=20
sold to the first person to respond. Then, there were =
several more=20
folks that showed interest. Thanks to all who sent me =
e-mail.</DIV>
<DIV>73, </DIV>
<DIV>Malcolm =
Bussey</DIV></BODY></HTML>

-----=_NextPart_000_004A_01BD880D.0EAB4660--

Date: Mon, 25 May 1998 19:53:03 -0400
From: wb8ygg@juno.com
To: qrp-1@Lehigh.EDU
Subject: [11750] Re: Sierra Mod for power on high bands
Message-ID: <19980525.195304.14582.1.wb8ygg@juno.com>

Hi everybody, and thanks for all the help.
I was somewhat embarrassed to realize that Bob Follet had written a bunch
up in a Winter 96 QRPP.
Oh well, I took a little bit of everybody's input for my 15 meter, and
now I have 3W , ok,, it's really about 2.89,,,,,
on 15M..
And now the rest of the story...

I did the R22 mod, the Transformer mod on the output, and not much
difference on 15 meters!!
So finally, as I was playing around with the module (live no less), I
noticed that the scope output went up considerably
when I touched near c34.. to make a long story short, I paralleled up a
few pf across this, and wall ah..
then the MRF 237 mod followed.. I didn't drill the board for this.. I
followed Bob Follet's instructions, and bent the base lead.
Works great.
4W on 40 and 80, 3w on 15, and now I feel like I can build the other
modules, and maybe go for field day with the Sierra!

I haven't had time to reply to everyone that responded, so just let me
thank everybody for all the help here.
I'm much happier with this power situation now for sure!!!!
I like QRPP, but for field day, < 1W is really tough!!!

73
Brad WB8YGG

Embedded Research
Brad WB8YGG/Gary N2JGU
<http://www.frontiernet.net/~embres>
embres@frontiernet.net

You don't need to buy Internet access to use free Internet e-mail.
Get completely free e-mail from Juno at <http://www.juno.com>
Or call Juno at (800) 654-JUNO [654-5866]

Date: Mon, 25 May 1998 20:28:38 -0400
From: "Ron Polityka" <wb3aal@talon.net>
To: "QRP-L" <qrp-l@Lehigh.EDU>
Subject: [11751] QRP TAContest June 6, 1998
Message-ID: <007201bd883d\$484361c0\$265445c6@default>
MIME-Version: 1.0
Content-Type: text/plain;
 charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

New QRP Contest on June 8, 1998. See below!

73, Good DXing & QRPing
Ron de WB3AAL

E-mail: wb3aal@talon.net
http://www.kpsnet.com/wb3aal/Start_Page.htm
BBS: WB3AAL @ WB3FYL.#BER.PA.USA.NA

EPA QRP # 1 QRP # 5318 10-10 # 13173
QRP-L # 1099 G-QRP # 3031 AK QRP # 309
Adventure Radio Society #380

=====

QRP Contest

Announcing a New Contest!
Sponsored by: QRP Society of Central Pennsylvania and
the Eastern PA QRP Club. (Rev 1.0)

Tired of trying to work those rare grid squares? Having a
tough time trying to get a new state because that last state
has only 15,000 people and only 2 are hams? Are you a
6-land ham and think no one needs another CA station?

Here is a contest where the multipliers are where the people
are!!

The First Annual QRP TACtical Contest!!

This contest is based on the TAC principle. The thought
came to me that there has to be a better multiplier other
than state or ARRL section. I found one that already exists
and changes with the population. It's the Telephone Area
Code (TAC)!

Yes, you who are in CA, how many area codes are there?
Why even here in PA we have at least 5 of them. There

are only 2 ARRL sections in this state. Also, this contest marries the acronym TAC with the word tactical, which in Ham's language means "Field" or "Portable". This will be a warm up for Field Day, the most tactical event of the year. Oh yes, since this is a warm up, it will be a sprint type of contest in duration. We want this to be the first contest for many hams, and that is why there is a Newbie category!

Here is the deal, this contest will be scheduled for June 6th, 1998. All stations participating must be QRP. QRO stations are okay to work. Since this is tactical, Morse will be the language of the day. HF and VHF bands may be used. No WARC, I'm a gentleman. No repeaters, multiple transmitters one at a time are okay, single op entries only. Newbies may have an Elmer or control op (if license class requires it) with them.

The Exchange will be Call, RST, Name, and TAC or Country. (Did you know Canada and several Caribbean islands have TACs?) If you are outside the US Canada or Caribbean, then you may use the country you are in.

If portable, then you use the area code of the nearest pay phone. Now no jokes like using 800 or 900, they will not count. Maps of the TAC are available everywhere, use your phone book, address book, etc. Oh, since the contest is sponsored by the QRP Society of Central PA and we are inviting our EPA QRP Club to be co-sponsor. They can't resist! TAC from PA are worth more points. (You knew that there was to be something in it for us didn't you?)

There will be 5 categories. They are QRP(1 to 5 watts), QRPp(less than 1 watt), Tactical(Portable), Home-brew (You've built it),and Newbie(It's your first contest ever). You may enter up to 4 of these. One winner will be in each category. Put it on your calendar now.

Cameron Bailey, KT3A
QRP Society of Central Pennsylvania

=====
QRP TAContest Rules

DATE/TIME: Saturday, June 6, 1998 1800 to 2359Z
MODE: CW only

EXCHANGE: Call, RST, Name, and TAC (Telephone Area Code) or

Country. Note - DX countries without an area code may use their Country Prefix.

Pennsylvania stations will send an "X" after the prefix.
Most TACs may be found in your telephone directory.

Example - KT3A DE EA8YU UR 559 GORAN EA8 BK
EA8YU DE KT3A QSL UR 559 CAM 717X BK

CATEGORIES: A total of 5 categories are available, and you may enter in up to 4 of them. They are: QRP, 5 watts output or less.

QRPP, Less than 1 watt output.

Tactical, a portable, temporary station using temporary antennas.

Homebrew, if you built it as a kit or from scratch.

Newbie, if this is the first contest you have ever entered yourself.

QSO POINTS: 5 points for every QSO. 10 Points for each QSO with a Pennsylvania station. The same station may be worked on different bands for additional QSO points and multipliers.

FREQUENCIES: HF and VHF bands, excluding 30, 18, and 12 meters.

No WARC bands. Suggest that you stay *around* the standard QRP frequencies. If using VHF bands, stay around standard calling frequencies. No repeater operation permitted.

MULTIPLIER: TAC and Country prefixes.

SCORE: Total score = QSO points x TACs and Countries + 1000 points for every category that you entered.

POWER: 5 watts or less output.

AWARDS: To be determined. Certificates for each winner in each category at least.

Contest Chair may participate, but not eligible for awards.

Submit your log showing:

Band, Time UTC, Station, RST rec'd, Name, and TAC or Country prefixes.

DEADLINE FOR SUBMISSION IS 15 JULY 98.
WINNERS ANNOUNCED BEFORE 31 JULY 98.

For sample log, and TAC/CC sheet, send SASE and one
unit postage to:

Cameron Bailey, TAContest
POB 173
Mount Wolf, PA 17347-0173

=====

ENTRY FORM - DUE BY 15 JULY 1998. PLEASE ATTACH LOG SHEET.

CALL _____ NAME _____

LOCATION _____

MAILING ADDRESS _____

TELEPHONE AREA CODE OR COUNTRY PREFIX _____

CATEGORIES ENTERED (NO MORE THAN 4 MAY BE CHECKED)

QRP |_|

QRPP |_|

TACTICAL |_|

Homebrew |_|

NEWBIE |_|

TOTAL QSOS (EXCEPT PA TACs) X 5 POINTS = _____

TOTAL QSOS WITH PA TACs X 10 = _____

TOTAL QSO POINTS = _____

TOTAL OF TACS AND Country prefixes = _____

MULTIPLY TOTAL QSO POINTS BY TOTAL OF TACS and Prefixes =_____

ADD 1000 POINTS FOR EVERY CATEGORY ENTERED TO ABOVE SCORE TO OBTAIN TOTAL
CONTEST SCORE

= _____

MAIL TO:

CAMERON BAILEY, TAContest
POB 173
MOUNT WOLF, PA 17347-0173

OR EMAIL TO: kt3a@juno.com (Text files only, no attachments!)

Date: Mon, 25 May 1998 20:29:19 -0500
From: "Bill Meahan" <mwmeahan@rust.net>
To: "Peter Zenker DL2FI" <Peter_DL2FI@csi.com>, qrp-1@Lehigh.EDU
Subject: [11752] RE: DC receivers in the news !
Message-ID: <199805260033.UAA12741@Fe3.rust.net>
MIME-Version: 1.0
Content-type: text/plain; charset=US-ASCII
Content-transfer-encoding: 7BIT

On 25 May 98, at 9:24, Peter Zenker DL2FI wrote:

[snip]
> I can send you an e-mail
> copy in German language, but if there is more interest it would be
> possible to translate it and send it either to the QRP Quarterly or QRpp
> to be printed.
>
> 72 de Peter, DL2FI

I would be VERY interested in such a translation (my technical German is
extremely rusty!)/ Perhaps posted to the Web would get the widest
distribution?

72!

--

Bill Meahan WA8TZG

mwmeahan@rust.net

ARRL, IMRA, QRP-L(#117), NorCal QRP (#407), G-QRP (#8468), MI-QRP (#M1458)
All statements herein are worth exactly what you paid for them
cat: a purr bearing mammal

Date: Mon, 25 May 1998 19:21:31 -0500
From: nilsbull@juno.com (Nils R Young)
To: gmeyers@diadnet.net, QRP-L@Lehigh.EDU
Subject: [11753] Re: C3 Intertype
Message-ID: <19980525.194730.12582.1.nilsbull@juno.com>

Gary,

C'mon, man! It works. It's got about 600 lbs of dead metal to go with it.
Linotype Ionic 9 pt. Century Schoolbook in three sizes. Some other stuff
I can't remember. Even some 4pt Rex with News Gothic.

C'mon, man, this is a good deal. A big stash of extra mold liners. All
widths between 10 pica & 30, down to 5 pt. Extra mold caps, space bands,
mag racks, the complete set of books, direct from the manufacturer, with
two parts manuals & an extra book on the casting mechanism. A good
machine, man! You can't pass this one up!

And all you have to do is show up with a truck that's got an 9 ft ceiling
on the box and about \$75 to pay the fork lift guy. He works right down
the street and he'd be glad to get the money. Do it on his lunch hour.

Hell, I'll even throw in the Poco #0 proof press with its original
Hamilton stand & cabinet! And did I tell you about the extra metal? Lots
of it. Two 5-gallon buckets in the shop, two more at the machine, and
metal still unmelted too! A pig & a half, I think ,somewhere.

C'mon down! Get this thing out of my estate auction! Please!

Cindy'll make spaghetti for lunch. Please?

73
Nils

Nils R. Bull Young
La Estancia de los Guajolotes Sonrientes :: The Grinnin' Turkey Ranch
WB8IJN &c :: The Tagalong Press :: email to: nilsbull@juno.com
<http://www.geocities.com/Athens/Olympus/9172>

You don't need to buy Internet access to use free Internet e-mail.
Get completely free e-mail from Juno at <http://www.juno.com>
Or call Juno at (800) 654-JUNO [654-5866]

Date: Mon, 25 May 1998 17:56:21 -0700 (MST)
From: Joe Gervais <vole@primenet.com>
To: qrp-l@Lehigh.EDU
Subject: [11754] Re: NC20 testing
Message-ID: <199805260056.RAA25665@usr06.primenet.com>

Howdy,

Mike (K1MG) wrote:

>
> I have the good fortune of being in temporary possession of Prototype
> # 1 of the Norcal 20 transceiver, having volunteered to test said rig.
> [... Nice DX List ...]
> QRP WAC in less than two weeks. Not bad, eh?

Wowzers - seems that ol' "DX Goodwill" karma from
the project is already starting to pay off! :-)

Cheers de AB7TT,

-Joe, vole@primenet.com, AZ ScQRPions (Phoenix)

"It's 106 miles to Chicago, we've got a full tank of gas, half
a pack of cigarettes, it's dark, and we're wearing sunglasses."
"Hit it!" -The Blues Brothers

Date: Mon, 25 May 1998 21:40:34 -0400 (EDT)
From: hsilver@pyx.net
To: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>
Subject: [11755] Re: C3 Intertype
Message-ID: <Pine.LNX.3.95.980525213753.16370C-1000000@matrix.pyx.net>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

On Mon, 25 May 1998, Nils R Young wrote:
[SNIP]

>

> Cindy'll make spaghetti for lunch. Please?
>
> 73
> Nils

Hrrmmm...with meatballs, mushrooms and Parmasean cheese ?

Harley Silver

Date: Mon, 25 May 1998 20:32:33 -0500
From: Frank Kienast <fgk@gte.net>
To: QRP-L@Lehigh.EDU
Cc: FrConrad@aol.com
Subject: [11756] Re: Query about "non-reactive" resistors
Message-ID: <356A1BB1.462F@gte.net>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

John,

About a year ago, I was doing some experiments to measure the power output of my 2 meter HT. I used 20 1000 ohm 1/2 watt carbon resistors in parallel. That is probably overkill for a 5-watt HT - you might try 10 500 ohm resostors in parallel. You need to keep the lead length at the end of the coax short, and keep the resistors clumped as close together as possible. I was measuring peak voltage by connecting a diode followed by a small capacitor across the resistors, and got strange results until I squeezed the resistors as close together as possible.

If you can find a 2 watt 50 ohm carbon resistor, that would be okay for testing a 5-watt HT as long as you keep the duty cycle down.

Hope that helps.

Frank Kienast
KB9QEI

John wrote:

>Dear Elmers of the Low Power Persuasion:
>
>Is there such a thing as a "non-reactive" resistor in the 50-100-200 ohm range

>that is readily available? I'd like to custom build a dummy load into a
>homebrew tuner, but most of the "off the shelf" DC resistors I have tried are
>quite reactive at RF.
>
>(Yes, now that you mention it--I did pass my general exam by memorizing the
>answers to the questions. Coeficient of electronic knowledge =.00000002).
>
>It seems a little bit of overkill to hang my cigarette-pack-sized radio onto a
>50-ohm one gallon paint can full of mineral oil just to get a non-reactive
>dummy load.
>
>Enlighten me, o wise ones.
>
>John+
>WB^MFS

Date: Mon, 25 May 1998 19:40:57 -0600 (MDT)
From: Paul Harden <pharden@aoc.nrao.edu>
To: "Gary E. Meyers" <gmeyers@dialnet.net>
Cc: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>
Subject: [11757] Re: C3 Intertype
Message-ID: <Pine.SOL.3.91.980525191503.10602A-1000000@zia>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

On Mon, 25 May 1998, Gary E. Meyers wrote:

> Okay you guys, I said I was an EX-printer...not stupid. I cut my teeth on
> linotypes and Ludlows; Meihle verticles and C&Ps. So I will say: "Thanks
> Nils, for a most tempting offer,"

You just don't want to clean all those old dusty space bands or have to
adjust the elevator jaw-vise slide blocks and justification cam lifters.
Aaaah, there was a time you'd kill for your own Linotype!

(Still have/use my old model D 10x15 Kluge, three cabinets of foundry
type and managed to loose all but one of my Quoin keys!)

72, Paul NA5N

Date: Mon, 25 May 1998 20:42:54 -0500
From: "Walter Dufrain" <walter@inlink.com>
To: <nilsbull@juno.com>, "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>
Subject: [11758] Re: C3 Intertype
Message-ID: <199805260143.UAA16710@thor.inlink.com>
MIME-Version: 1.0
Content-Type: text/plain; charset=ISO-8859-1
Content-Transfer-Encoding: 7bit

Nils, if you had a Babcock cylinder press (4 pages-up) and a couple of boxcars of sheet newsprint, then I would take you up on the Intertype.....I even have a several fonts of mats !
Walter Dufrain, AG5P Wright City, Missouri

> From: Nils R Young <nilsbull@juno.com>
> To: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>
> Subject: Re: C3 Intertype
> Date: Monday, May 25, 1998 7:21 PM
>
> Gary,
>
> C'mon, man! It works. It's got about 600 lbs of dead metal to go with it.
> Linotype Ionic 9 pt. Century Schoolbook in three sizes. Some other stuff
> I can't remember. Even some 4pt Rex with News Gothic.
>
> C'mon, man, this is a good deal. A big stash of extra mold liners. All
> widths between 10 pica & 30, down to 5 pt. Extra mold caps, space bands,
> mag racks, the complete set of books, direct from the manufacturer, with
> two parts manuals & an extra book on the casting mechanism. A good
> machine, man! You can't pass this one up!
>
> And all you have to do is show up with a truck that's got an 9 ft ceiling
> on the box and about \$75 to pay the fork lift guy. He works right down
> the street and he'd be glad to get the money. Do it on his lunch hour.
>
> Hell, I'll even throw in the Poco #0 proof press with its original
> Hamilton stand & cabinet! And did I tell you about the extra metal? Lots
> of it. Two 5-gallon buckets in the shop, two more at the machine, and
> metal still unmelted too! A pig & a half, I think ,somewhere.
>
> C'mon down! Get this thing out of my estate auction! Please!
>
> Cindy'll make spaghetti for lunch. Please?
>
> 73
> Nils
>

> Nils R. Bull Young
> La Estancia de los Guajolotes Sonrientes :: The Grinnin' Turkey Ranch
> WB8IJN &c :: The Tagalong Press :: email to: nilsbull@juno.com
> <http://www.geocities.com/Athens/Olympus/9172>
>
>
> -----
> You don't need to buy Internet access to use free Internet e-mail.
> Get completely free e-mail from Juno at <http://www.juno.com>
> Or call Juno at (800) 654-JUNO [654-5866]

Date: Mon, 25 May 1998 21:51:39 -0400
From: "Ken Burrough" <ne0c@1st.net>
To: "QRP-L" <qrp-l@Lehigh.EDU>
Subject: [11759] QRP TAContest
Message-ID: <002d01bd8849\$87b1ab80\$87d633d1@ne0c.1st.net>
MIME-Version: 1.0
Content-Type: text/plain;
 charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

Sounds good to me. Will have the ARGO 556 and GAP verticals on with new TAC 740.

Ken/ne0c---QRP-L 1524---The Buzzard Roost--Flushing, Ohio

Date: Mon, 25 May 1998 22:05:10 EDT
From: MSU1972 <MSU1972@aol.com>
To: qrp-l@Lehigh.EDU
Subject: [11760] Help for KC-1
Message-ID: <f245d609.356a2358@aol.com>
Mime-Version: 1.0
Content-type: text/plain; charset=US-ASCII
Content-transfer-encoding: 7bit

I can't find my manual with the listing of codes to operate the KC-1 keyer, i.e., exchange paddles, code speed, etc. Can't wait for a copy from NorCal...can anyone one send me the listing so I can operate my KC-1. This time I'll paste it on the inside of the cover as suggested!!!!
Thanks in advance, David, KB8OCC

Date: Mon, 25 May 1998 22:13:37 EDT
From: FrConrad <FrConrad@aol.com>
To: QRP-L@Lehigh.EDU
Subject: [11761] Non-reactive resistors and the C-3 Intertype
Message-ID: <7b02bc60.356a2552@aol.com>
Mime-Version: 1.0
Content-type: text/plain; charset=US-ASCII
Content-transfer-encoding: 7bit

To all (most of whom couldn't care less).

Thanks for the reply or resistors and reactance. Some of us learn by reading books, and others learn the hard way. I took a 5-watt resistor, hit it with a hammer and, lo and behold, a nice little inductor contained therein.

I'm beginning to get it.

I can't believe there are really "hot metal" men on a QRP ham radio list. I grew up with type lice and pied cases and I've hauled more than my share of pigs. My dad worked for the Los Angeles Times as a Lynotype operator--set most of the front page of the famous "Japs Bomb Pearl Harbor" Bulldog edition. Then he switched off the machine and enlisted in the US Marine Corps (as you can tell, he was one of the lucky few who made it ergo, this contributor to the list).

I bought the very machine that he set the page with several years ago. Ended up giving it away. Best thing you can do with a Lynotype now is attach a bunch of BB Chain to the distributor arm, float it out into the bay and sink it. Guaranteed to make a hurricane-proof mooring.

Whoa...now that's a long way from QRP.

John+

Date: Mon, 25 May 1998 20:40:16 -0600
From: "Steve Hurst" <shurst@magiclink.com>
To: <qrp-l@Lehigh.EDU>
Subject: [11762] Holiday wishes
Message-ID: <199805260240.WAA34772@nss4.cc.Lehigh.EDU>
MIME-Version: 1.0
Content-Type: text/plain; charset=ISO-8859-1

Content-Transfer-Encoding: 7bit

Happy Memorial Day to ALL.

But especially to all the veterans
thanks.....

73,
Steve Hurst
KA7NOC (southern Idaho)
<http://www.magiclink.com/web/shurst>
shurst@magiclink.com

Date: Mon, 25 May 1998 23:06:05 EDT
From: DYARNES <DYARNES@aol.com>
To: qrp-1@Lehigh.EDU
Subject: [11763] Carrying Case for Sierra
Message-ID: <a3792781.356a31a0@aol.com>
Mime-Version: 1.0
Content-type: text/plain; charset=US-ASCII
Content-transfer-encoding: 7bit

Carrying cases for the Sierra (and other small QRP rigs) have been discussed before, but I saw one the other day that looked like the best yet. At Costco there was a stack of video camcorder cases, model CVC1 by Case Logic, for a very good price--\$11.95. This is actually a two piece padded case with the bottom part detachable if you don't want to use the whole package. I picked one up, and it works great! The top part houses the Sierra, band modules (in a nice little pouch), power cables, headphones, etc. The bottom part is perfect for a 12 volt 7ah battery plus connectors, etc. There is a sturdy shoulder strap and also a good, solid hand strap on the top.

Case Logic makes lots of nice carry bags like this, but all of them I have seen are much more expensive than this (\$20 and up) at Target and other discount stores. Anyway, just thought I would pass this along in case anyone was still searching for something like this.

72 de Dave W7AQK

Date: Mon, 25 May 1998 21:09:27 -0600 (MDT)

From: Paul Harden <pharden@aoc.nrao.edu>
To: Joe Gervais <vole@primenet.com>
Cc: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>
Subject: [11764] Re: NC20 testing
Message-ID: <Pine.SOL.3.91.980525210552.10602F-100000@zia>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

On Mon, 25 May 1998, Joe Gervais wrote:

> Mike (K1MG) wrote:
> > I have the good fortune of being in temporary possession of Prototype
> > # 1 of the Norcal 20 transceiver, having volunteered to test said rig.
> > QRP WAC in less than two weeks. Not bad, eh?
>
> Wowzers - seems that ol' "DX Goodwill" karma from
> the project is already starting to pay off! :-)

For most of us in the U.S., we do sorta see California as a
"third world country" -- well, politically at least. And Mike, under
California's proposition whatever it is, don't you need to post your
test results in English, Spanish, Chinese and Korean, at least?

: -)
Paul NA5N

Date: Mon, 25 May 1998 21:21:58 -0600 (MDT)
From: Paul Harden <pharden@aoc.nrao.edu>
To: FrConrad <FrConrad@aol.com>
Cc: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>
Subject: [11765] Re: Non-reactive resistors and the C-3 Intertype
Message-ID: <Pine.SOL.3.91.980525211355.10602G-100000@zia>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

On Mon, 25 May 1998, FrConrad wrote:

> My dad worked for the Los Angeles Times as a Lynotype operator--set
> most of the front page of the famous "Japs Bomb Pearl Harbor" Bulldog edition.
> Then he switched off the machine and enlisted in the US Marine Corps

OK, I'm a bit of a history nut and for nostalgic things ... but have to

tell you in all seriousness, that is the neatest story I've heard on this Memorial Day. Dwarfs anything I've seen on the evening news about our Vets. How appropriate, and what a neat piece of history your father had the distinction of being a part of.

72, Paul NA5N

Date: Mon, 25 May 1998 20:22:19 -0700
From: Jay & Jackie <jayboy@psnw.com>
To: qrp-1@Lehigh.EDU
Subject: [11766] Computer help...again
Message-ID: <3.0.1.32.19980525202219.006c1200@mail.psnw.com>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

Greetings:

First thanks all for the internet connect problem solutions I received last week for this new machine. Since this is the only list I belong to I have to ask just one more: My old 166mhz/win95 machine prints to my laser printer (HP laserjet 4L), but this new machine will not take the driver disks...so no printer....It tells me exit windows before continuing....I do, and still no luck. Went to HP web page and they don't even list a driver for this printer (except for DOS and WIN)....I have those drivers already....some deal!

Help.....I don't want to buy another printer, I'm saving for a K-2.

73 Jay, W6JDB Madera, CA

Date: Mon, 25 May 1998 23:28:05 EDT
From: N9DD <N9DD@aol.com>
To: qrp-1@Lehigh.EDU
Subject: [11767] The good old days
Message-ID: <1bea722f.356a36c6@aol.com>
Mime-Version: 1.0
Content-type: text/plain; charset=US-ASCII
Content-transfer-encoding: 7bit

Hi Gang

I'm feeling very, very nostalgic right now.

I spent most of today entering loggings from my days as a Novice into a computer logging program I bought at Dayton.

I was a novice back in 1972. I made my first contact with a Heath DX60B and HR10B in March of that year. Two days and 15 contacts later, the transmitter died. It wasn't until 4 and a half months had passed before I got back on the air. When I did, I hit 80 meters with a vengeance. I made over 780 QSOs before I upgraded in March of '73 - a few on 40 and 15, but 80 meters was MY band.

A few things jumped out at me while I reentered all those contacts. Novices were only allowed crystal control back then. That changed while I was a novice, but it wasn't until Christmas of 1972 that I had a VFO (a nice new HG10B from Mom and Dad). As a result, the loggings showed my frequency, as well as the frequency of the station I worked. It was usually close to the same, but not always.

I worked a ton of stations with WN9JK* calls. I wonder how many of them are still hams? Because calls changed to WB calls after upgrading, none of them showed up in the QRZ cd lookup. Some of the non-novice calls did. I couldn't help but wonder how many of these guys were still on the air, how many of the QRZ listings were of silent keys... The term "silent key" means a little more to me now...

Boy, I was a night owl. Many of my contact occurred at 2 or 3 in the morning. I'm beginning to realize why my college grades were less than impressive. I was on the air a lot. Today, an average CW QSO for me lasts 10 to 15 minutes. Back in 1972 I had lots of hour long contacts. Most of them were a half hour, at least. Sure, my cw was slower back then, but not THAT much. I think we are all in too big a hurry these days. It appears that back then we relaxed and enjoyed the contacts more. I don't remember having any problem passing my 13 wpm code test back then. The much given advice about getting on the air to get your code speed up must have worked for me.

I had lots of loggings of check-ins to Novice traffic nets - IPON, the Indiana Post Office Net, MNN, the Michigan Novice Net, etc. I doubt that any of these nets are still around. I remember having alot of fun with them.

Along the way entering contacts I relived my first contacts to the coasts, lots of loggings with "nice qso" remarks, my first DX, etc. I had a couple dozen pages filled with contacts in the 1973 Novice Roundup - a contest that the ARRL has dropped due to lack of interest. I couldn't help but notice that I often wrote comments like "he was QRP - 3 watts!" or something similar. QRP obviously impressed me back then. For Christmas of 1973 I got an HW-7 and had it on the air by the 26th. QRP has been a part of my ham radio career for a long, long time.

When I was done entering all those contacts, I couldn't help but tune the rig

to 3.712 MHz. Conditions were horrible, and I didn't hear anybody on, but I couldn't help but think that somewhere, way out in space, a bit of energy is still out there. Its a CQ from WN9IUQ...

Please excuse the bandwidth. I had to share my feelings with others I knew would understand.

73,

Tom N9DD (ex-WN9IUQ, WB9IUQ)
South Bend, IN

Date: Mon, 25 May 1998 23:51:10 EDT
From: K5BDZ <K5BDZ@aol.com>
To: K5BDZ@aol.com, qrp-1@Lehigh.EDU
Subject: [11768] Re: NE602 & NE612 Balanced Output
Message-ID: <b561bef2.356a3c2f@aol.com>
Mime-Version: 1.0
Content-type: text/plain; charset=US-ASCII
Content-transfer-encoding: 7bit

OK folks...will submit the input/output circuits to QRPP to see if they are interested in printing them.
Bill, K5BDZ

Date: Mon, 25 May 1998 21:56:12 -0600
From: Niel Skousen <nskousen@scientechn.com>
To: qrp-1@Lehigh.EDU
Subject: [11769] Elmer: Basic building & soldering stuff
Message-ID: <v04003a00b18feb81bf06@[205.180.127.17]>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

This was a post to a friend some time ago, he suggested it might be of some help to someone out there.... use [DEL] as appropriate:

>Niel,
>For starters:
>
>1) What type of soldering iron (or gun) would you recommend for

>kit-building? A specific model or manufacturer would help. What price range
>would be reasonable.

>

>2) In addition to the iron itself, what extra equipment would I
>need to do some clean soldering on kits?

>

>3) For simple kit building, what test equipment would I HAVE to own
>(if any)?

>

First if you have never ordered from DigiKey or Mouser I strongly recommend
a call to each for a catalog. They make great references around the shack
along with the ubiquitous ARRL Handbook ...

Digikey	800-344-4539	FAX 218-681-3380
Mouser	800-346-6873	

>From the list below you might think that I favor Mouser, tis not so.
Mouser had the Weller irons, and so I stuck with them for your list. Its
very much a toss up although I general spend more \$\$ w/ Digikey...

Also, I'm writing this to an english prof, writer I aint !!! sorry !! I
hope that I do not offend you with the assumption to start with a basic
description of soldering, if this is way too basic please forgive me.....

1) As for an iron, my personnal preference is Weller. A soldering
station (\$100 - \$250 new, \$25 - \$50 used) is nice to have, but you will do
very well with a pencil iron for \$30 new . A wire stand is also very
handy, the one listed below also holds a small sponge used damp to keep the
tip clean. A clean soldering iron tip is a key element of good / fast
soldered joints. I'll try to write a description of a single soldered
joint (component mounted on pcb, soldered on opposite ie 'solder' side vs
'component' side of board). If this is at all difficult to follow lets
get on the phone together some evening (maybe over a 38S kit... :-)) and
place a few parts and work through it.

The soldering iron is first allowed to heat for 5-10 min. The comp is
placed in the pcb and the component leads are slightly flaired out (by
hand) to hold the component in place. A small amount of solder is used to
'wet' the tip of the hot iron. This initial application of solder is
wiped off on the sponge, leaving a clean tip.

A second time the soldering iron tip is 'wetted' with a small amount of
solder, and the tip is placed to the junction of the component lead and the
pcb pad. The iron tip is usually resting at about a 45 degree angle with
respect to the pcb, and the solder is applied to the opposite side of the
component lead. When it is observed that the solder is flowing to the
heat, the solder is fed into the pad until a smooth covering of solder is

achieved. The iron tip is removed, and the joint is allowed to cool without shock or movement. Several (5-10) solder joints can be done before wiping the iron tip clean again.

During breaks of 5-30 min, just apply a small amount of solder to the tip before inserting it into the holder. The liquid solder ball on the tip protects the surface of the iron and prolongs the life. Like wise when finished soldering for the day, clean the tip and apply solder to the tip (form a small ball covering the tip of the iron..), place the iron in the holder, remove power, and allow the iron to cool in the stand. My current tip is two yrs old, and I do both ham and partime consulting at the bench, it works 8-20 hrs/wk.

After soldering the excess leads are trimmed flush with the solder on the back of the board. I've mentioned a couple of tool options on the list below.

I have also recommended a solder on the list below. The solder I normally use is in 1 lb spools, about 10yrs for a casual builder... so I picked a very nice solder (with a small silver content) in small quantity. You'll like it. Also added solder wick for cleanup and solder removal...

Several key points may be noted (ok so I even expounded a bit :-)) in the narrative above.

- A) keep the tip clean,
- B) allow the small amount of liquid solder on the tip to conduct the heat to the junction, a 'dry' tip takes 3-4 times longer to transfer the heat and may damage the board and the nearby components, DONT use tip pressure to help heat the joint, it WILL ruin pads and pc boards. This is especially true when using solder wick to remove solder or rework the pcb.
- C) Apply the solder to the opposite side of the joint from the heat source, allow the liquid solder to flow to the heat. This results in a better joint, and less chance of 'cold joints'.
- D) when the iron is not in use, leave a small amount of solder (a small ball or bead) on the tip to protect it. NOTE: the first time the tip is used, it is common to 'season' the tip much like preparing a dutch oven. The iron is allowed to heat and solder is fed onto the tip of the iron and then wiped off. The may be repeated several times so that the entire tip has recieved a liberal coating of solder and is then cleaned. Also the tip of the iron is usually in the neighborhood of .75 in long while the business end of the tip is a briter silver color and is seldom longer than .1-.25 in. This is the portion which is to be 'seasoned' and protected as above.

2) The solder wick and tools below are the basic set needed to do clean work. Also get a couple of cheap acid brushes. Mousers are \$4.50-ish each, you can do better at a local parts (auto, hobby, etc) shop. There are countless cleaners. wait till you get the catalog to browse and then

we'll talk...

3) Test equipment you HAVE to have. Well given the loose definition of HAVE, here is my thoughts. I would STRONGLY recommend a good digital meter as a must. beyond that life gets a little fuzzier. Given a moderate budget my recommendations go something like an RF-1 or MFJ259 (assuming a general coverage receiver is also on your list somewhere...).

You might wish to wait till you browse both catalogs and QST before you jump... Radio Shack also has some reasonable meters, often found on sale... We'll finish the test equipment in the next round. Please advise how this post meets your needs, and what equipment and experience you have. We'll build from there....

Good luck, hope this is of some benefit

Niel

Niel Skousen : WA7SSA skousen@srv.net
Idaho Falls, ID QRP-L.119 fr DN33wm

Date: Mon, 25 May 1998 21:45:28 -0600
From: Niel Skousen <nskousen@scientech.com>
To: FrConrad@aol.com, qrp-l@Lehigh.EDU
Subject: [11770] ELMER:(long) "non-reactive" resistors
Message-ID: <v04003a00b18f9a407e0f@[205.180.127.59]>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

John,
you already got your answer -- but since this was done I'll post it anyway just in case someone is REALLY bored today :-)

There are a number of ways to realize a good dummy load. First there are very good, and reasonably priced non-inductive resistors available (e.g. at bottom) For HF purposes, the standard metal film resistors are really not too bad, but for the ELMER discussion let's take a poorer resistor and 'make it work'.

Let's walk through the following steps:

- build our initial load
- test and get data

- analyse data and determine actual load parameters
- compensate the load at the maximum planned operating freq
- retest, finish...

Lets assume that we have some junk box 250 ohm 1 watt resistors available. So we slap 5 in parrallel to get 50ohms, but since we're going to get on the 6m band we take the time to keep all leads short, and generally try to build for VHF.

At 80m the dummy load looks pretty good (1.01 or so), we check it at 10m and its not doing so good (1.9 -ish) and then again at 50 Mhz and now we're in trouble, it's 3.2.

Since we have a pretty good idea that the problem is parasitic inductance the real load impeadance is of the complex form $50+jX$ The complex form of the load impeadance, $R+jX$, gives both the real (resistive) and imaginary (reactive) components, remember $+jX$ is inductive reactance and $-jX$ is capacitive reactance.

We need to reviw a couple of terms and simple equations from the handbook (Transmission line sections) SWR is defined as $(1+\rho)/(1-\rho)$ where ρ is the reflection coefficient. ρ is also the $\text{SQRT}(\text{reflected power/forward power})$ and can be found as a ratio of load (Z_L) and characteristic (Z_0) impeadances. Don't forget $Z=(R^2+X^2)^{1/2}$ (the square root of the sum of the squares).

$$\text{SWR} = (1+\rho)/(1-\rho)$$

$$\rho = (P_r/P_f)^{1/2} = (Z_L - Z_0)/(Z_L + Z_0)$$

BUT with a couple of simplifying assumptions (as the professors used to say 'obvious to the casual observer'...) and a bit of algebra so that the ratio is ALWAYS greater than 1:

$$\text{for } Z_L > Z_0 \quad \text{SWR} = Z_L/Z_0 \quad (1)$$

$$\text{for } Z_L < Z_0 \quad \text{SWR} = Z_0/Z_L$$

So since we 'know' we have a '50' ohm load plus some inductance we can use equation (1) above and fill in the blanks on the table

So for our data table:

Freq	SWR	ZL	R	Xs
3.5	1.01	50.5	50	7.1
28	1.9	95	50	80.8
50	3.2	160	50	152

Inductors in parallel work just like resistors $[1/((1/L)+(1/L))]$. Thus for $Z_L = 50 + j152$ each resistor is approximately 250 ohms with a parasitic inductance of 2.4uh (microhenry, $2.4E-6$). This is likely to be a wirewound resistor !!! A more typical real value would be something in the range of $250 + j20$ (64 nh series inductance...)

But since we've made this wirewound load, lets make it work.

Note that this impedance is expressed in the series form or the equivalent of a resistor in series with an inductor. In order to accurately compensate the network with a capacitor to cancel the inductive reactance we must change the impedance to the parallel form (resistor in parallel with inductor) More on series and parallel expressions for impedance, including the relationships between the $R + jX$ and $R || jX$ forms, can be found in the handbook.

So adding parallel form to the data table:

Freq	SWR	ZL	R + jXs	Rp	jXp
3.5	1.01	50.5	$50 + j7.151$	360	
28	1.9	95	$50 + j80.8$	181	112
50	3.2	160	$50 + j152$	168	512

Now we can make some engineering judgment as to how to compensate the load. Compensation in this context is the appropriate cancelation of the parasitic inductive reactance, which is unwanted, by adding a parallel capacitance.

I've added a 39pf cap in parallel with the load, and recalculated the table. Also a table showing VSWR at some other values of compensation is given.

Freq	SWR	ZL	R + jXs	Rp	jXp	Z.new	VSWR
3.5	1.01	50.5	$50 + j7.151$	360	50.15	1.0	
28	1.9	95	$50 + j80.8$	181	112	59.69	1.19
50	3.2	160	$50 + j152$	168	54.66	1.09	

Freq	0pf	5pf	15pf	27pf	33pf	39pf
3.5	1.01	1.01	1.01	1.00	1.00	1.00
28	1.9	1.77	1.56	1.35	1.27	1.19
50	3.2	2.58	1.85	1.37	1.22	1.09

If we used a network analyser to watch the complex impedance from 3.5 to 50 Mhz we would find that for some value of parallel capacitance the VSWR

(actually we'd watch the return loss for better data accuracy) would be the flatest acceptable value. If we used more capacitance the VSWR would bottom out at a lower frequency and then climb, but the error component would be capacitive.

This would happen if the capacitance choosen were resonant with the parasitic inductance at a freq. lower than the maximum desired freq. (say if we used 50 pf, which would be resonant at 28Mhz).

Would I ever do this to make a wirewound dummy load ? NO!!! but it does show a lot of pertinent impeadance manipulation and should help understand parasitic parameters a wee bit !!

Well, methinks that one can get carried away with this Elmer stuff :-)

G'nite
Niel

For completeness lets not forget:

Many vendors (MiniCircuits for example) make small RF terminations.
Many vendors (Caddox and others) make genuine non-inductive resistors.
A LAN termination may be 75 or 50 ohm (in spite of what the network hopes for) and are usually 1w terminations, good for 5w low duty cycle operation to 50M++

Niel Skousen : WA7SSA skousen@srv.net
Idaho Falls, ID QRP-L.119 fr DN33wm

Date: Mon, 25 May 1998 22:06:57 -0600
From: Niel Skousen <nskousen@scientech.com>
To: qrp-l@Lehigh.EDU
Subject: [11771] ELMER: If you must have homework :-)
Message-ID: <v04003a01b18fefe1c634@[205.180.127.53]>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

RE: the wirewound load epistle that I posted... I've got a spreadsheet put together if anyone wants it.

BUT do your own first... the handbook has all the equations, the tables in

the post will guide you... see if you can get it all working and match numbers with me.

Good luck
Niel

Niel Skousen : WA7SSA skousen@srv.net
Idaho Falls, ID QRP-L.119 fr DN33wm

Date: Mon, 25 May 1998 21:12:05
From: "M. Monninger" <markem@primenet.com>
To: "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>
Subject: [11772] Re: Non-reactive resistors and the C-3 Intertype
Message-ID: <3.0.5.32.19980525211205.0098eb30@pop.primenet.com>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

At 09:21 PM 5/25/98 -0600, Paul Harden wrote:

>

>

>On Mon, 25 May 1998, FrConrad wrote:

>> My dad worked for the Los Angeles Times as a Lynotype operator--set
>> most of the front page of the famous "Japs Bomb Pearl Harbor" Bulldog
edition.

>> Then he switched off the machine and enlisted in the US Marine Corps

>

>OK, I'm a bit of a history nut and for nostalgigic things ... but have to
>tell you in all seriousness, that is the neatest story I've heard on
>this Memorial Day. Dwarfs anything I've seen on the evening news about
>our Vets. How appropriate, and what a neat piece of history your father
>had the distinction of being a part of.

>

Another one that might be of interest. Not QRP, but certainly a propos to the holiday...

My father-in-law turned 18 on Dec. 7, 1941. On the 8th, he enlisted in the Marines...he woulda enlisted on the 7th but it was a Sunday and the recruiting office was closed. He served in the Marines for over 30 yrs...retired on June 30, 1972. Served in WWII, Korea, and almost 3 tours in Vietnam...he was injured when his C-130 crash-landed and was sent home (actually to the Navy hospital in San Diego). He was an interesting guy.

My stepdad flew B-17s in Europe...30+ missions, shot down 3 times, twice behind enemy lines. He also has some interesting stories.

My dad was an infantryman in the Phillipines and his unit was one of the first to land on the mainland of Japan. Luckily, they didn't have to fight their way in, altho that was the original plan.

Me, I tried to enlist in the Air Force in Jan 1967 but failed the physical. I was 4-F all thru the Vietnam thing. I did, however, spend a couple years in the Peace Corps (1970-71) in the Democratic Republic of the Congo (formerly the Belgian Congo, formerly Zaire) There is a tie-in to ham radio...I operated as 9Q5M0 for a while. We borrowed the callsign and a Swan rig from a missionary and ran it on 20M until we fried the power transformer. But that all is best left to another post.

Sorry for the ramble, but it IS Memorial Day...

Mark AA7TA

Date: Mon, 25 May 1998 00:02:17 -0500
From: Larry Jones <ljones@flash.net>
To: qrp-1@Lehigh.EDU
Subject: [11773] ICOM email address
Message-ID: <3568FB59.7F4E@flash.net>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Greetings Gang...

I use to have the email address for ICOM. Lost it when I updated my computer. Does anyone know what it is???

Larry N50SG

Date: Tue, 26 May 1998 10:09:02 +0200
From: "Peter Zenker DL2FI" <Peter_DL2FI@csi.com>
To: "'Internet Liste via PoP3'" <qrp-1@Lehigh.EDU>
Subject: [11774] Help needed SST40
Message-ID: <001301bd8882\$c9510ca0\$16d374a7@ZENKERPN.perkin-elmer.com>

MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

Hello all, my SST I bought in Dayton performs mostly well but I have two problems:

1st, the VX0 range is from 7030 to 7042. That's ok for US, but in EU I would prefer to use 7025 to 7035. Any other idea then changing the Xtal?

2nd. The Analyser shows signals every 1MHz up and down the wanted frequency only about -25dBC for the next one, stepping abt 10 dBC from one to one (looks like a Xmas tree).

Before I do some extra work on this, has anyone seen this before? Any idea?

72 de Peter

Date: Tue, 26 May 1998 09:58:12 +0200
From: "Peter Zenker DL2FI" <Peter_DL2FI@csi.com>
To: <inforhc@mail.infocom.etecsa.cu>, "'Internet Liste via PoP3'" <qrp-1@Lehigh.EDU>
Subject: [11775] RE: DX Receivers antipararell diodes articles
Message-ID: <001201bd8882\$c4ee00a0\$16d374a7@ZENKERPN.perkin-elmer.com>
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

Hello Arnie and all of you, who are interested in the Polyakov design. These article including the schematics will be very long. Some people sent me private mail and asked for a copy. I will send a draft translation plus the GIF files directly to them. Paul Harden will fin tune my draft to be printed in QRPP so it will help all.

72 de Peter

> -----Original Message-----
> From: owner-qrp-1@Lehigh.EDU
> [mailto:owner-qrp-1@Lehigh.EDU]On Behalf Of
> Prof.Arnaldo Coro Antich

> Sent: Montag, 25. Mai 1998 14:45
> To: Low Power Amateur Radio Discussion
> Subject: RE: DX Receivers antipararell diodes articles
>
>
> Dear PETER ZENKER et al:
> YES... I think it is going to be a very interesting
> contribution to the
> development
> of QRP rig's receivers.
> A posting with the articles for the QRP-L will move a lot
> faster than a
> printed
> article, and will let us carry on some experiments with this very
> interesting
> circuit.
> Thanks Peter for letting us now about the german literature
> in the subject
> Arnie Coro C02KK
>
>
>
>

Date: Tue, 26 May 1998 05:09:18 -0600
From: w0yse@juno.com (Neil Klagge)
To: osier@northnet.org, qrp-l@Lehigh.EDU
Subject: [11776] Re: Hootowl Report (or lack of)
Message-ID: <19980526.050918.6686.0.w0yse@juno.com>

George, and everyone
I didnt do much better than George. I got only 2 Q's on 7.110+-5kHz.
kk7ju and kb4djr. Pretty sparce. After an hour of that, I left for
7.040 to glean 8 more q's in the last 40 minutes of the contest. It was
a hoot, tho' as 20 was hopping earlier in the contest.

---72/73's
Neil, w0yse since '54
now from Layton, Utah

On Mon, 25 May 1998 02:35:19 -0700 Lisa Osier <osier@northnet.org>
writes:

>Hi Gang!!
>
> Life on 7110 was tough!!! Calling CQ with no replies ,
>VERY noisy on 40 and a small group of non-contesters made it
>impossible
>to find anyone. Moved around a bit but could raise nobody. Will wait
>for
>the next contest maybe someone will show up.....
>
> 73/72s
> George, N2JNZ
>
>

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Get completely free e-mail from Juno at <http://www.juno.com>
Or call Juno at (800) 654-JUNO [654-5866]

Date: Tue, 26 May 1998 08:27 -0700 (PDT)
From: eakwik@mail.hac.com
To: qrp-l@Lehigh.EDU
Subject: [11777] Antenna tuner recommendations
Message-ID: <0ETK00H05DI1R1@mail.hac.com>
MIME-version: 1.0
Content-type: TEXT/PLAIN; CHARSET=ISO-8859-1

I broke my ZM-2 turner last night. I will fix it if I can get a replacement capacitor from Emtech. I might even buy another one because I like the little unit so much. But I think it is a little too fragile for everyday use. I did not beak it, I more or less just wore it out with a lot of band changing. I am a new boot so I QSY a lot and have not settled in to a favorite band yet. I am looking for a turner/SWR meter combo. I use balanced feedlines and only operate QRP. What does everybody use? Thanks in advance.

Ed Kwik KC8JIE QRP-L# 1444

Date: Tue, 26 May 1998 05:52:58 -0700 (PDT)
From: Old Radios <old_radios@yahoo.com>
To: qrp-l@Lehigh.EDU
Subject: [11778] Hoot-Owl Sprint

Message-ID: <19980526125258.7129.rocketmail@send1a.yahoomail.com>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii

Hi QRP'rs

Had fun this weekend doing the sprint. I spent only an hour total, but got about 14 states/provs. I even picked up two new states. Forty meters seemed the best bet from here in CT, but I did make a few 20 meter contacts also. I used my Oak Hills Spirit and Whiterook paddles.

Thanks Chuck for reminding me about the contest. I read about it when my QQ arrived, but soon forgot about it.

73, N10CJ

==

Patrick Franzis email: old_radios@yahoo.com

DO YOU YAHOO!?
Get your free @yahoo.com address at <http://mail.yahoo.com>

Date: Tue, 26 May 1998 08:15:32 +0000
From: "Bryan Turner" <turnerw@email.uah.edu>
To: qrp-l@Lehigh.EDU
Cc: n4xy@att.net
Subject: [11779] Who got fooled?
Message-ID: <9805261315.AA27451@uahis1.uah.edu>
Mime-Version: 1.0
Content-Type: text/plain; charset=US-ASCII
Content-Transfer-Encoding: 7BIT

The story about Pi=3 in Alabama is a joke. Who got suckered?

Same goes for:
Craig Sheregold wanting cards
The insurance report from the bricklayer
The insurance report from the ham building a tower
All of the money will go to education
The FCC is looking at banning all religious broadcasting
The JATO rocket car wreck
Anything on the Art Bell show

Somewhere, P.T. Barnum is laughing.

73 Bryan W8LN

Date: Tue, 26 May 1998 08:00:33 -0600 (CST)
From: Bruce Rattray <rattray@gpfn1.gpfn.sk.ca>
To: Low Power Group <qrp-1@Lehigh.EDU>
Subject: [11780] ignore please
Message-ID: <Pine.SOL.3.91.980526075946.15316E-100000@gpfn.sk.ca>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

May 26...8:00 a.m.

Date: Tue, 26 May 1998 08:15:33 -0600 (CST)
From: "Brian.Buydens@usask.ca" <buydens@duke.usask.ca>
To: "L. B. Cebik" <cebik@utkux.utcc.utk.edu>
Cc: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>
Subject: [11781] Re: Pi redefined
Message-ID: <Pine.OSF.3.96.980526081436.25874A-100000@duke.usask.ca>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

On Sat, 23 May 1998, L. B. Cebik wrote:

> If pi goes, can the Fibonacci constant be far behind? It can be
<snip>

> I have seen, but cannot verify the authenticity of, a proposal for a QRP
> Fibonacci Day contest, the basic rule of which is that the
> operator--besides adhering to QRP power limits--must have at least one
> Fibonacci constant element in the operation. It can be a half square

Perhaps they could get a signal report of 58 ...

Brian

```
+-----+
| Brian Buydens,           Computing Services, University of Saskatchewan |
| email: Brian.Buydens@usask.ca           http://duke.usask.ca/~buydens |
| VE5RDV                               |
|                                     |
| DO NOT ADD ME TO ANY MAILING LISTS WITHOUT MY CONSENT !!!           |
+-----+
| "Love is a snowmobile racing across the tundra and then suddenly it   |
| flips over, pinning you underneath.  At night, the ice weasels come." |
|                                     -- Matt Groening                    |
+-----+
```

Date: Tue, 26 May 1998 10:26:25 -0400 (EDT)
From: "L. B. Cebik" <cebik@utkux.utcc.utk.edu>
To: "Brian.Buydens@usask.ca" <buydens@duke.usask.ca>
Cc: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>
Subject: [11782] Re: Pi redefined
Message-ID: <Pine.GS0.3.96.980526102453.28059C-1000000@larry.cas.utk.edu>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

> Perhaps they could get a signal report of 58 ...

But purists would demand reports of either 4.9443 by 8 or 5 by 8.0902.

LB, W4RNL

Date: Tue, 26 May 1998 09:42:14
From: Steven Weber <kd1jv@moose.ncia.net>
To: qrp-l@Lehigh.EDU
Subject: [11783] The SLR Rx- a review (long)
Message-ID: <3.0.3.16.19980526094214.219f3e7a@mailhost.ncia.net>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

The SLR (Shielded Loop Receiver) is a clever DC receiver design by Daneil

Wissell, N1BYT and was published in QST back in Oct, 97.

As the name implies, the SLR uses a small shielded loop (abt 12" dia) for the antenna and also tunes the front end of a NE602. The other unique feature is the use of an Analog Devices AMP04FP Instrumentation amplifier on the output of the NE602. The AMP04 provides very high common mode rejection. The combination of the balanced loop input and High CMR on the output gives the SLR very good AM rejection. Unlike other DC receivers, this design is useable at night on 40 Meters. An LM386 audio amp provides plenty of drive for a small speaker.

I only had one problem getting the SLR to work. The NE602 wouldn't oscillate. As I was building it, I had thought the DC blocking cap between the '602 and tank circuit was a bit small (33pfd specified) and sure enough, changing that out to a .001 ufd made it work. I also made a few other minor changes, used RG-174 coax for the loop and used an air variable cap and reduction drive instead of a MV104 tuning diode, as I had the former and not the latter.

Once I got the VFO frequency set right (by using a portable SW radio with digital dial) and the loop tuned right, I started hearing signals. The SLR is surprisingly sensitive, considering its using a 1 foot loop for an antenna, sitting on the bench. It's also very quiet, very little background hiss. Sure enough, the SLR wasn't bothered by SW BCI, with CW stations easily heard between SW BC stations on 40 M in the novice segment and SSB stations on the phone band. You can still listen to the AM stations by zero beating, it's just that they don't wipe out the band.

The only down side is this is still a DC receiver and the bandwidth is fairly wide. You can often hear 3-4 CW stations at a time. A couple of extra stages of narrow band pass filtering and/or a CW resonant speaker would be a big help. A DSP would of course work, but it should be transformer isolated.

SSB stations sound good, so one interesting idea would be to buffer the VFO and feed it into a balanced mixer to produce a DSB signal. Would be a neat little side band rig. Too bad you can't use the small loop for transmitting also.

The SLR is built on a 3" x 5" board, runs on a 9 V battery. All the controls and input-output jacks can mount on the board. Normally, the SLR is pot tuned, with a coarse and fine tuning control. It can be built for 80, 40 or 30 meters.

The bare board, chip set or a complete kit can be obtained from Jade Products, email jadepro@jadeprod.com for more info and pricing.

Standard disclaimer, no connection, et al, just thought this was a neat

design I had to try out.

72,

Steve, KD1JV....In the White Mountains of New Hampshire

"Melt Solder"

Date: Tue, 26 May 1998 10:45:46 -0400
From: Dan Halbert <halbert@bbn.com>
To: QRP-L@Lehigh.EDU
Subject: [11784] Re: [11587] Pi redefined
Message-ID: <199805261445.KAA10131@franklin.bbn.com>

The purported news article about the Alabama legislature redefining pi is a hoax. I refer you to:

<http://www.usatoday.com/life/cyber/tech/ctc676.htm>
5/8/98: "Net Hoax on pi just won't die"

Dan, KB1RT

Date: Tue, 26 May 1998 11:01:31 -0400 (EDT)
From: "L. B. Cebik" <cebik@utkux.utcc.utk.edu>
To: Steven Weber <kd1jv@moose.ncia.net>
Cc: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>
Subject: [11785] Re: The SLR Rx
Message-ID: <Pine.GS0.3.96.980526104611.2542C-100000@larry.cas.utk.edu>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

The fine review of the SLR raises some interesting station design questions that are not beyond the abilities of many QRPers to answer.

The SLR as presented in QST is a fine simple receiver with a fascinating front end. If we ignore its weaknesses as a CW receiver (bandwidth a bit wide) and similar questions, we are left with a shielded loop antenna and its use on a receiver front end with a means of accomplishing high common mode rejection.

That is the basis for a more complete receiver with a more sophisticated IF/AF train capable of all the filtration and signal processing one might

desire.

For the low HF bands, the shielded loop antenna with common mode rejection is another tool in the arsenal of receiving gear that makes QRP contacts possible. It is not just for simple receivers, but also for sophisticated dedicated receivers. These additional receivers may be for home use, since they might overburden field operations. However, they can make a valuable addition to a home station. Hams already use SCVs (deltas, rectangles, half squares, etc.) for special purposes (low gain but high immunity to high angle QRM/QRN, and Beverages do similar work. The major difference is that these antennas work to standard receiver inputs. One might develop the SLR front end with a converter to feed a standard, well-endowed (with filtration and processing) receiver.

The SLA has special properties to enhance reception. We may one day return to having "separates" (separate transmitters and receivers), each optimized to their intended jobs. That permits the use of an array of receivers/receiving antennas, with switching to the one best for a path and set of conditions. Then, the transmitter and its antenna can be focused on for its intended job (where incoming QRM/QRN are not problems) of getting a signal at maximum strength for the power used to its intended receiving site.

There are no rules forbidding more than one antenna (except those local ordinances and restrictive covenants that try to forbid any antenna). Likewise, there are no rules against having more than one receiver, each optimized for an antenna at its front end of designs to allow reception under almost any conditions (except, of course, lightning in the back yard).

That sounds like a design challenge to me--as well as a fertile field for testing under contact conditions.

-73-

LB, W4RNL

L. B. Cebik, W4RNL	/\	/\	*	/	/	/	(Off)	(423)	974-7215
1434 High Mesa Drive	/	\	\	----	/	---	(Hm)	(423)	938-6335
Knoxville, Tennessee	/\	\	\	/	/		(FAX)	(423)	974-3509
37938-4443 USA	/	\	\	\					cebik@utk.edu
QRPARCI 2572	G-QRP	7203	CQC	125	NEQRP	347	NORCAL	1111	MIQRP 1432
NWQRP 401	ARRL Life:	Technical & Educational	Advisor					10-10	41159
QCWA 13211	scQRP	28	AK/QRP	343	CW Ops QRP Club	(VK)	476	FISTS	2600
									http://web.utk.edu/~cebik/radio.html

Date: Tue, 26 May 1998 11:20:00 -0400
From: Dale Scott <dcscott@us.ibm.com>
To: <qrp-1@Lehigh.EDU>
Subject: [11786] ELMER 101: Part 5 - What Part 5????
Message-ID: <5030100020912348000002L082*@MHS>
MIME-Version: 1.0
Content-Type: text/plain; charset=iso-8859-1
Content-Transfer-Encoding: quoted-printable

I've recently seen postings regarding Part 5 yet I've never seen a Part=5 lesson nor is there a Lesson 5 on Mike's website. Am I missing something here???

73 - dale/w7hlo

Dale C. Scott
IBM -- Engineering Technology Solutions
(206) 587-2784 8/277-2784

Internet: (work) dcscott@us.ibm.com
(home) dcscott@ibm.net
OV/VM: dcscott@ibmusm54
=

Date: Tue, 26 May 1998 11:32:42 -0400 (EDT)
From: Paula Bailey <pmbail01@ox.slug.louisville.edu>
To: Dan Halbert <halbert@bbn.com>
Cc: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>
Subject: [11787] Re: [11587] Pi redefined
Message-ID: <Pine.LNX.3.96.980526112325.882A-1000000@ox.slug.louisville.edu>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

On Tue, 26 May 1998, Dan Halbert wrote:

> The purported news article about the Alabama legislature redefining pi is
> a hoax. I refer you to:
>
> <http://www.usatoday.com/life/cyber/tech/ctc676.htm>
> 5/8/98: "Net Hoax on pi just won't die"

Ah. I *knew* this had to be an urban legend. :) (When it was posted, I'd thought originally that, well, this had been some sort of April Fool's joke a la the "modem virus" joke postings. There *are* some folks in Alabama's government seemingly hellbent on turning the state government into a theocracy, but changing pi to *de jure* 3 is REALLY absurd even for them. :)

Besides, even if they really HAD, it still wouldn't be the most inaccurate version of pi used. The _Guinness Book of World's Records_ notes that the Indiana General Assembly voted in 1897, in House Bill 246, that pi was *de jure* 4. :) (I would expect that said bill was revoked, though. :)

ObQRPSorta:

What's funny--the creator of NuMorse (a CW trainer program for PC's) is offering free registration of either NuMorse or NuTest to persons drawn from a pool of emailed answers to mind puzzles (the sort of puzzles one would see in, say, the _Old Farmer's Almanac_). The puzzle for this drawing, coincidentally, does involve pi. :)

> Dan, KB1RT

-pb

Date: Tue, 26 May 1998 08:30:03 -0700 (PDT)
From: KB0VCC/1 <kb0vcc@rocketmail.com>
To: qrp-l@Lehigh.EDU
Subject: [11788] Soil Condx & Lightning Protection...?
Message-ID: <19980526153003.18272.rocketmail@web1.rocketmail.com>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii

Hey Gang,

All this talk about soil conditions and all, got me to reflect on the project I worked on this weekend. Winter hit quickly after I moved to my current QTH, so tho' I had a chance to put up a dipole, until yesterday, I had NO lightning "protection". What concerns me is how dry and sandy the soil felt as I drove in the ground rod. I mean, this 8' rod practically FELL into the

soil! I've read how dry sandy soil is usually far from conductive. I intend to put in maybe 3 more rods, fanning 4' out from this one, but I'm wondering if I'm really exposed here with this ultra dry sandy soil. Should I bury long bare "radials" from this ground rod to provide a better "ground"?

Also, just 3 feet from where I drove this recent rod is the household electrical ground rod. I ran a ground strap to that rod, electrically bonding the two. Is this a VIOLATION of the N.E.C.? My logic being, I anticipated a ground loop between the coax and the rig if these were not connected.

Finally, my "shack" is some 75' from these ground rods (which are located below where the coax enters the house) so I intend to put a network of ground rods just outside my shack, and link these two grounds at my ground strip in the shack. Is this cool, or is the entire house gonna light up with a direct hit on the antenna??? This summer I intend to put up more antlers and plan to utilize this same ground system (and more with a vertical).

It's been a while since I read the chapter in the Handbook on grounding, but wanted to run the questions by this group. Comments?

Thanks for the help,
72 es 73,
-Dale

```
=====
Dale Anderson           In the Mt Washington Valley
KB0VCC                  Conway, New Hampshire
QRP-L #91 / CQC #251    Grid Sq: FN43KX
ARS #234 / FISTS #3172  http://www.qsl.net/kb0vcc
=====
```

DO YOU YAHOO!?
Get your free @yahoo.com address at <http://mail.yahoo.com>

Date: Tue, 26 May 1998 11:36:28 -0400
From: "Vincent Ferme" <vferme@sprint.ca>
To: "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>
Subject: [11789] Re: [11587] Pi redefined
Message-ID: <005501bd88bc\$0dea4cd0\$4a1105d1@frsswilap04284.callnetcanada.com>
MIME-Version: 1.0
Content-Type: text/plain;
 charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

This reminds me of a story I was told years ago and claimed to be true, and I don't doubt it. :))

A semi-literate small town mayor upon seeing the construction of an elevated water reservoir, called the engineer in charge to complain. He said the reservoir should be underground, the engineer replied that was not possible due to the law of gravity. The mayor, unimpressed, told the engineer to give him the law number so he could have it revoked in the next council meeting.

73 de Vince, VE3VFN.

Date: Tue, 26 May 1998 11:33:00 -0500
From: kreinbd@ccgate.dl.nec.com (David Kreinberg)
To: qrp-1@Lehigh.EDU
Subject: [11790] CW Class 101: Ideas Needed
Message-ID: <00081548.4159@ccgate.dl.nec.com>
Mime-Version: 1.0
Content-Type: text/plain; charset=US-ASCII
Content-Transfer-Encoding: 7bit
Content-Description: cc:Mail note part

Gang,

I've just been given the task of instructing an introductory class in learning the code for my local club. Hopefully, by the early fall we'll have at least a few more Generals on the air.

My question is for those of you who have done

this sort of thing in the past. I want to keep it interesting, so as not to loose anybody to boredom. I plan to mix some hand keyed practice (with a keyer and paddle), along with computer generated stuff (Super Morse, etc.), code practice device (MJF portable jobbie), tapes (Gordon West, Ziliak, etc).

Any comments by others who've taught a class are welcome. What pitfalls, mistakes can I avoid?

Thanks everyone.

ObQRP: Not much luck in the Texas QSO Party over the weekend. Not many strong signals at all! Very noisy condx. After winning the QRP category last year, this year was a let down!

73 de Dave, NR3E
QRP-L #25
nr Dallas, TX

Date: 26 May 1998 12:36:09 -0400
From: Glen Leinweber <leinwebe@mcmail.CIS.McMaster.CA>
To: n7ri@juno.com
Cc: qrp-l;;
Subject: [11791] Re: Elmer 101: NE612 Balanced Output
Message-ID: <1998May26.123609-0400@[130.113.234.7]>

In , Ralph L Irons wrote:

> Does the circuit following the mixer provide something like a
> 3K termination for the mixer? If so, how can we see this?
>

First, C33(0.01uf) has a very low impedance, so that T3 is coupled very tightly to Q4 base. Whatever Q4's input Z is, that's what T3's going to see. Ditto with C34(0.01uf)

Next, take a look at Q4's biasing resistors, R23(22K) and R22(10K). Their parallel combination is 6800 ohms. So T3 isn't going to see a load any higher than this.

Now comes the trickier part: determining the actual base input impedance of Q4. Whatever it is, it'll be in parallel with the bias resistors above, lowering the 6.8K load Z we have so far.

Q4 is an "emitter follower". The impedance that we'll see (looking into its base terminal) is $h_{ie} + h_{fe} * R_e$ where R_e is the impedance from emitter to ground. and h_{ie} is the base-to-emitter impedance of the transistor and h_{fe} is the transistor's current gain (at 7 MHz.).

I'm going to make a guess at h_{ie} of about 300 - 1000 ohms. And I'm going to guess that h_{fe} is about 25.

If you look up the 2N4401 data sheet, you'll think I'm way off. They list $h_{ie}=700$ ohms (at 6ma. I_c). But they list $h_{fe}=150$

The difference arises because these small-signal h-parameters were measured at 1KHz, not at 7MHz. At high frequencies, current gain drops off. At about 200MHz, it has no current gain at all.

What is R_e ? Maximum value is 500ohms due to R24. But in parallel with R24 is Q5 and its bias resistors. Bias resistors R25(2.2K) and R26(470) work out to 387 ohms. I'd estimate that Q5 has about the same Z as its bias resistors. So in parallel with R24 is 387 ohms, in parallel with another 387 ohms. So total R_e is $500 || 387 || 387 = 140$ ohms

So in summary, for Q4 we have:
 $h_{ie} = \text{approx } 700$ ohms
 $h_{fe} = 25$
 $R_e = 140$ ohms

And its input Z is $700 + 25 * 140 = 4200$ ohms.

This is in parallel with the bias resistors of 6.8K

So the total Z that T3 sees is $6800 || 4200 = 2600$ ohms

Now this is a minimum estimate, because I've assumed that the wiper of R24 is right up at the top. If its down lower, the total Z figure above will be higher, because R_e will be larger.

Dave has chosen bias resistors on the low side. This provides temperature stability, and also means that the load that T3 sees doesn't change wildly as you turn the R24 trimpot.

Date: Tue, 26 May 1998 11:47:05 -0500 (CDT)
From: Adrian Weiss <aweiss@usd.edu>

To: MNHopkins <MNHopkins@aol.com>
Cc: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>
Subject: [11792] Re: Re Receivers -- Get an HQ
Message-ID: <Pine.SOL.3.94.980526113333.25531A-100000@sunburst>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

On Sat, 9 May 1998, MNHopkins wrote:

> Best RXs of old were the Hammarlunds and best of all was the HQ-170. Triple
> conversion is trouble fraught, but they pulled it off and the 60kc IF can
> slice a Saturday night Novice band. Genreal converage 180 not as good for

The big > chassis is easy to work on and the "bad transformer" problem,
if it exists, > can be fixed in the time it takes just to get inside a
R-390. NC-400? Naw, > if you have the chance and a truck to haul it, get
a JP-600.

It is noteworthy > that Ade Weiss, the QRP Guru, used a JP-600
-- must have looked funny with a > two transistor TX on top.

I second AB5L ("The QRP'r with the nicest ferret") about the Hammurand
line with but one exception. Yes, the SP-600JX21 is a fantastic rx. The
funny thing is that, after all these years, turn-on drift is minimal and
it settles down after about five minutes. Then it is rock-stable unless
you are counting to 10E-5! Great filtering etc. "Boatanchors" is the
correct term for this unit. However, in my early days, I was
aweight-lifter -- Olympic style -- and could clean and jerk about 290,
squat-clean 320. So, I wasn't too put off carrying mine down 3 flights of
stairs and across the National parking lot to my truck with the thing on
my back. Now, welllll, I've been working myself up to lifting it off a side
table onto the main table to open it up and replace a defetive swtich
(which I put in!).

For the exception. I had the great pleasure of a visit with Bobbie KB9GKX
in Indianapolis after Dayton. Visited at her TV station shack. She has
built a breadboard circa 1927 rig using a '10 tube, and operates with a
Novice c-1950 6L6 rig at home. Well, she had an SX-28 sitting in her lab.
I had to fire it up an listen. Wow! The selectivity is incredible. Another
feature that the SP-600 lacks is ham band markers for setting the main
tuning dial (up to 40Mhz) so that the hamband-spread is pretty close. Then
I remembered that I traded off an S53A for a guy's S-40A so that he could
trade the S53A in for an SX28. I got to operate with the SX28A and
Bobbie's reminded me that that experience with the SX28A established my
concept of the "best" receiver.

So, bottom-line, I'll have to scrounge around and buy an SX28. I'll draw the line then, owning an RME-69 (1936), and SP-600JX21, and an SX28A. By the time I get around to using them regularly, I surely won't be able to lift them!

Yes, it was kind of funny with the huge SP600 sitting there behind a couple of 6v lantern batteries and a 3-transistor rig! But it sure got across the visual concept of QRP!

Nice to meet you at Dayton Mike

73 Ade

> > 73 de
ab5L, michael in dallas, student of Tecraft and International (ICM) ham >
products and mementoes of Six Meters' Golden Age: 1957-58 > Michael
Hopkins > Box 226841 > Dallas, TX 75222 MNHopkins@AOL.com > > > > > >

Date: Tue, 26 May 1998 12:44:26 EDT
From: PGSPersEng <PGSPersEng@aol.com>
To: qrp-l@Lehigh.EDU
Subject: [11793] Batteries: NiMH worth the extra \$\$
Message-ID: <b49988df.356af16c@aol.com>
Mime-Version: 1.0
Content-type: text/plain; charset=US-ASCII
Content-transfer-encoding: 7bit

Not exactly QRP related, but I'd like to hear the wisdom of the group.

I need to replace my HT battery. There's a 30% to 50% premium for NiMH batteries compared to NiCd models. I've always had bad luck with NiCd's (OK, I abuse them), but are NiMH models worth the extra bucks?

Thanks,
Paul, AA1MI

Date: Tue, 26 May 1998 13:29:42 -0400
From: "John J. McDonough" <jjmcd@mdn.net>

To: <eakwik@mail.hac.com>, "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>
Subject: [11794] Re: Antenna tuner recommendations
Message-ID: <199805261754.3977600@midland2.mdn.net>
MIME-Version: 1.0
Content-Type: text/plain; charset=ISO-8859-1
Content-Transfer-Encoding: 7bit

> From: eakwik@mail.hac.com; owner-qrp-1@Lehigh.EDU

>

> yet. I am looking for a turner/SWR meter combo. I use balanced
> feedlines and only operate QRP. What does everybody use? Thanks
> in advance.

I'm using an MFJ-971 with great results. It's not automatic, and sometimes I lust after an automatic tuner, but the little MFJ has been pretty amazing. It will NOT load anything, however ... it seems to need something resembling an antenna. It has a cross needle SWR meter with scales down to 3 watts. I have to admit, I sometimes find it a little clumsy - you have to swith jumpers to choose between 3/30 and 30/300 watt scales, and the switch between the 2 selected is on the back. I generally leave it on the 30/300 jumper setting because once in a while I turn up the power, but when I drag out the Pixie, it's a pain to go inside and move jumpers to get the 3 watt scale. so 90+ percent of the time it stays on the 30 watt scale, which is fine because 5 watts ends up just about in the middle (the scale isn't linear).

73 de WB8RCR

Date: Tue, 26 May 1998 12:52:06 -0400
From: mstangelo@worldnet.att.net
To: <scott.freeberg@guidant.com>, "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>
Subject: [11795] Re: Anyone Using AMECO AC-1 On The Air?
Message-ID: <19980526165722.AAA17296@mstangelo.ems.att.com>
MIME-Version: 1.0
Content-Type: text/plain; charset=ISO-8859-1
Content-Transfer-Encoding: 7bit

My first station consisted of an AC-1 and a Lafayette HA230 receiver.

At the age of 16 I did yard work and saved enough for the HA230, which my father bought for me at the Lafayette store in Jamaica, NY. Does anyone remember that store? It was the industrial warehouse and stocked

many discrete parts, as well as the latest electronic marvels from Japan.

My funds were exhausted at this time; I had a receiver but no transmitter. What should I do- build a rig or save for another season to purchase a decent transmitter. Even if I had a transmitter, I needed crystals, which cost a lot of money in those days. (Custom made rocks still go for a pretty penny today!)

The ARRL handbook had a circuit for a 75watt transmitter built around parts scrounged from an old TV set - probably a Lew McCoy design. I had a well stocked parts box but figured it would cost \$60 for the additional parts. I continued saving and looked forward to next year.

My parents to the rescue. They owned a beauty shop and mentioned my predicament to some of their customers. One customer's husband was a ham. She invited me over to the house to meet him.

He was my second elmer. (My first tutored me and gave me my novice exam.) I still remember entering his basement and admiring his collection of junk. One end of the basement had an old desk loaded with equipment. I remember he had two HF setups. The primary consisted of a Hammarlund receiver and transmitter. I forgot the backup transmitter, but the receiver was a Lafayette HA350.

I explained my predicament to him. He looked at this junk and pulled out an Ameco AC-1, a handful of FT-243 40 meter novice crystals and a Lafayette wavemeter and sold them to me for 8 bucks, less that the price of the crystals. I was elated!

When I got home I erected a 40 meter dipole and went on the air. I made a couple of contacts. I remember working many Pennsylvania stations from Long Island. Most stations reported that I had chirp. I tried isolating it to a particular crystal and refined my loading techniques but never fully cured the chirp problem.

By this time I saved enough money to purchase a Knight Kit T60- but this is another story.

I still have the AC-1, crystals and wavemeter. I still use the wavemeter. Maybe I'll resurrect the AC-1 and try to cure that chirp problem.

Mike N2MS, ex WN2IMC

Date: Tue, 26 May 1998 13:00:54 -0400 (EDT)
From: Bob Patten <n4bp@bc.seflin.org>
To: Vincent Ferme <vferme@sprint.ca>
Cc: Marvin Reis <mer30@juno.com>, Lourdes Arias-Green <lagreen@wplg.com>, Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>
Subject: [11796] Re: [11587] Pi redefined
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

On Tue, 26 May 1998, Vincent Ferme wrote:

>
> This reminds me of a story I was told years ago and claimed to be true, and
> I don't doubt it. :))
>
This one was well documented...

Florida is the lightning capitol of the U.S. Some years ago we had a brilliant Chief Engineer at WPLG-TV in Miami. One summer day, we had an exceptionally bad lightning strike at the studio that disabled much of the equipment for a considerable time. The following day, this genius put out a memo to the entire engineering staff to the effect that "There will be no future lightning strikes of this magnitude permitted". In over 30 years at the TV station, I've seen several CE's come and go. My recollection is that this individual served one of the shorter terms...

73,

Bob Patten, N4BP (0 0) Plantation, FL

-----o00o-()-o00-----

E-Mail: n4bp@bc.seflin.org
Web Page: <http://wg104a.wh.uni-stuttgart.de/~n4bp>
Brass Pounder BBS: (954) 472-7715

Date: Tue, 26 May 1998 13:03:28 -0400
From: Michael Maiorana <mikemo@ibm.net>
To: qrp1 <qrp-l@Lehigh.EDU>
Subject: [11797] Elmer101: Repost, Part 5, transmit mixer bandpass filter]
Message-ID: <356AF5E0.1DFA@ibm.net>
MIME-Version: 1.0
Content-Type: multipart/mixed; boundary="-----48EC25FB624D"

This is a multi-part message in MIME format.

-----48EC25FB624D

Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Some have missed part 5 so I am reposting this. Sri about the bandwidth.
--

-----48EC25FB624D

Content-Type: message/rfc822
Content-Transfer-Encoding: 7bit
Content-Disposition: inline

Received: from fidoii.CC.lehigh.EDU [128.180.1.4] by in1.ibm.net id
895755643.76072-1 ; Thu, 21 May 1998 13:00:43 +0000
Received: from Lehigh.EDU ([127.0.0.1]) by fidoii.cc.Lehigh.EDU with SMTP id
<13100-27282>; Thu, 21 May 1998 08:59:47 -0400
Received: from nss4.cc.Lehigh.EDU ([128.180.1.13]) by fidoii.cc.Lehigh.EDU with
ESMTP id <12505-32694>; Wed, 20 May 1998 23:06:34 -0400
Received: from out1.ibm.net (out1.ibm.net [165.87.194.252])
by nss4.cc.Lehigh.EDU (8.8.8/8.8.5) with ESMTP id XAA06710
for <qrp-l@Lehigh.EDU>; Wed, 20 May 1998 23:06:31 -0400
Received: from mikemo.tampa.advantis.com (slip-32-100-34-219.fl.us.ibm.net
[32.100.34.219]) by out1.ibm.net (8.8.5/8.6.9) with SMTP id DAA76062 for <qrp-
l@Lehigh.EDU>; Thu, 21 May 1998 03:06:30 GMT
Message-Id: <356399E8.7BA3@ibm.net>
Date: Wed, 20 May 1998 23:05:12 -0400
Reply-To: mikemo@ibm.net
Sender: owner-qrp-l@Lehigh.EDU
Precedence: bulk
From: Michael Maiorana <mikemo@ibm.net>
To: "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>
Subject: Elmer101: Part 5, transmit mixer bandpass filter
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit
X-To: qrp1 <qrp-l@Lehigh.EDU>
X-Mailer: Mozilla 3.01Gold (Win95; U)
X-Listprocessor-Version: 8.1 beta -- ListProcessor(tm) by CREN

As promised here is the next section of the Elmer 101 project. This is a
short one and fairly simple so we should get through it quickly.

I have updated the elmer101 web site at <http://www.qsl.net/kf4trd>
with the part 4 information and mixer discussion. The web site is
getting a little big so I need to do some work on it to try to organize
it.

Anyway, where we left off we had a hodgepodge of frequencies coming out of the NE612 mixer chip. Only one of the frequencies is the one we want to transmit, so we need to filter it out and stop the other unwanted signals from reaching our final amplifier. Dave uses a bandpass filter implemented with 10.7 Mhz IF transformers and some caps.

Gather the following components.

C30 47pf
C31 220pf
C32 47pf
C33 .01 microfarad
T2 IF transformer
T3 IF transformer

Install these components in the appropriate places on the circuit board. Be sure to solder the "tabs" of the transformers to the board as they act as a shield and need to be grounded.

Double check your component values and parts placement (Really, you should do this ;-)

You will need your RF probe, or an oscilloscope for the adjustment of this section. Connect your RF probe to pad of the base of Q4 (not installed yet). Turn on the power to the board and connect your temporary wire key between J3-1 and J3-3. You should see a reading on your RF probe. First adjust T3 for maximum reading on the RF probe. After you peak T3, adjust T2 for maximum reading. Go back and forth a few times to get the highest reading possible.

If you have an oscilloscope you should see a nice clean sine wave at about 7 MHz. Mine was 3 volts peak to peak at 7.111.42 MHz.

Here is what is happening in the circuit. The outputs of the NE612 (pins 4 and 5) are the differential outputs of the mixer. Remember the mixer discussion? You have the VFO signal at about 3 MHz and the internal BFO signal at 4 MHz being mixed at U5. The two main frequency components on the output are 7 MHz (desired signal) and 1 MHz (difference mixer component). Look at the mixer output frequency components at <http://www.qsl.net/kf4trd/ne602.html> . Notice that there are frequency components from the mixer as high as 25 MHz. We have to get rid of all of them except the 7 MHz one.

T2 and T3 are configured as a band pass filter, tuned with C30 and C32 for 7 MHz. The fine tuning is done by turning the slugs in the transformers. These IF transformers are designed to resonate at 10.7 MHz and contain internal capacitors, but the resonant frequency is lowered to 7 MHz by paralleling C30 and C32.

I'd like to get into a discussion regarding the characteristics of the IF transformers and exactly how they are used, relating to impedances and the use of C31.

Don't be shy and ASK QUESTIONS!

Also, when you finish up and adjust T2 and T3, you can prepare the primary of T4 as per the instructions on page 13. Don't install it in the board yet and don't install the secondary winding. We will need this for the next step.

Have fun!

--

72 de ku4qo
Mike Maiorana
Palm Harbor, FL

"I wasted time, and now doth time waste me;
For now time hath made me his numbering clock;
My thoughts are minutes." William Shakespeare

-----48EC25FB624D--

Date: Tue, 26 May 1998 12:13:45 -0500
From: John Burnley <JBurnley@ifmc.org>
To: qrp-1@Lehigh.EDU
Cc: rgobrick@worldnet.att.net
Subject: [11798] Iowa QRP....an update (long)
Message-ID: <s56ab219.014@ifmc.org>
Mime-Version: 1.0
Content-Type: text/plain
Content-Disposition: inline

Earlier this year I posted a note for anyone wishing to form an Iowa QRP group to privately Email me. Nineteen people responded and the club held an inaugural meeting in April. Six people attended that meeting with members bringing an NW80/20 (Dan's), a NorCal 38 special, Pixie II, and a Ten-Tec 6 meter converter. Since the first meeting a lot has happened!

We now have a listserver with was set up by Adam (N2BRT).
Dan (KB0JUL) set up a great webpage for us. The URL is:

<http://www1.iastate.edu/~drcase/iowaqrp.html>

We have a CW net which Jerry (WB0T) is net control. The net meets weekly on Sundays at 4:30pm (CDT) on 3.711. That time and frequency may change as we are still experimenting to hit the right propagation.

Jerry (KI0IH) is putting together newsletters for us. We are starting out with an Email newsletter since all members have internet capability.

We don't have an official name yet, but to make the process interesting a contest is being held to name the group! The submitter with the winning entry gets a Pixie II kit. Voting is now taking place and the name should be official soon.

The Des Moines hamfest was held in late April and we had a QRP table to spread the good word. Larry (WB0RMT) came up with the idea and he put together flyers and brought goodies for show and tell. The table was a success and we got to meet a lot of people.

We plan on having a similar table (Saturday only) at the Sioux City Hamboree 20 hamfest this weekend. A big thank-you to some special QRP'ers and QRP organizations for their support (a more detailed posting will be made later!). We will also be gathering for lunch this Saturday at the Hamboree 20. Look us up if you're there!

There will be a June meeting but the place and time is yet to be determined. The group has decided to remain a local organization for now. Any Iowa ham or hams with Iowa ties are eligible for membership. If interested Email me at:

burnley-ia@worldnet.att.net

If you've been toying with the idea of getting a group together, DO IT! It's been a blast for us!

72/73, John NU0V

!

!

Date: Tue, 26 May 1998 12:21:53 -0500
From: Tellefsen Bob-CNSE97 <cnse97@lmpsil02.comm.mot.com>
To: we6w@qsl.net
Cc: QRP-L list <QRP-L@Lehigh.EDU>
Subject: [11799] Tube replacements
Message-ID: <E726B6D1F2C7D1119AB900805FA74B3C41C322@s-il02-n.comm.mot.com>
MIME-Version: 1.0
Content-Type: text/plain

Hi, Ed.

Been watching your comments about trying to replace the of HV rectifier tube.

I vaguely remember an article about this from long time ago. Seems the author put a resistor in series with the output of the diodes to limit the inrush current to the filter caps. Once they were charged up, a relay contact shorted out the resistor. I think the resistor was between the center tap of the power transformer and ground, so it wasn't exposed to HV above the chassis. An RC time constant delay kept the relay contacts open long enough for the caps to charge, then allowed the relay to pull in.

Hope this helps a bit, Ed.

73, Bob N6WG

Date: Tue, 26 May 1998 18:25:33 +0000
From: "Frank G3YCC" <g3ycc@g3ycc.prestel.co.uk>
To: "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>, Peter_DL2FI@csi.com
Subject: [11800] RE: DC receivers in the news !
Message-ID: <E0yeNUG-0003U2-00@hen.scotland.net>
MIME-Version: 1.0
Content-type: text/plain; charset=US-ASCII
Content-transfer-encoding: 7BIT

> Date: Mon, 25 May 1998 09:24:49 +0200
> Reply-to: Peter_DL2FI@csi.com
> From: "Peter Zenker DL2FI" <Peter_DL2FI@csi.com>

> To: "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>
> Subject: RE: DC receivers in the news !
> X-To: "'Internet Liste via PoP3'" <qrp-l@Lehigh.EDU>

> German language, but if there is more interest it would be possible to
> translate it and send it either to the QRP Quarterly or QRpp to be printed.
>

I would be very happy to include a translation on my web site if this
was possible?

Best wishes.

--73--

Frank G3YCC G QRP 042

email: g3ycc@g3ycc.prestel.co.uk

QRP web Site: <http://www.homeusers.prestel.co.uk/g3ycc/>

Packet: G3YCC@GB7HUL

Date: Tue, 26 May 1998 18:25:33 +0000
From: "Frank G3YCC" <g3ycc@g3ycc.prestel.co.uk>
To: qrp-l@Lehigh.EDU, gqrp-l@blacksheep.org
Subject: [11801] Re: 10w SSB rigs
Message-ID: <E0yeNUD-0003U2-00@hen.scotland.net>
MIME-Version: 1.0
Content-type: text/plain; charset=US-ASCII
Content-transfer-encoding: 7BIT

Following the request, I have an entry in the Guest Book on my web
site from a Japanese amateur who says a number of QRP versions of
rigs are available over there. Perhaps if you visit the site you will
take a look.

I did have once a FT77S once which was a 10w only rig.

--73--

Frank G3YCC G QRP 042

email: g3ycc@g3ycc.prestel.co.uk

QRP web Site: <http://www.homeusers.prestel.co.uk/g3ycc/>

Packet: G3YCC@GB7HUL

Date: Tue, 26 May 1998 13:36:27 -0400
From: Ed Tanton <n4xy@att.net>
To: QRP-L Reflector <qrp-l@Lehigh.EDU>
Subject: [11802] pi redefined
Message-ID: <3.0.5.32.19980526133627.00bc0c80@postoffice.worldnet.att.net>
Mime-Version: 1.0

Date: Tue, 26 May 1998 18:01:01 +0000
From: Ed Loranger <we6w@qsl.net>
To: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>
Subject: [11804] WE6W-- Hoot Owl numbers.
Message-ID: <356B035D.625E@qsl.net>
Mime-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Just a quick note:
I Built a 160 Meter Short TX loop and
worked 2XQRP with Pete/W6ZH.

With my Trusty Les Logan Speed-X bug:

Band	Qso's	Pts	RIG/ANT
160	1	5	Johnson Viking II (5W)/ Short TX loop 4'x 3'!!
80	0	0	No ant. yet...
40	27	108	OHR-100 at 4 W/ dipole
20	2	4	Drake TR-3;Short 3' TX loop up 6 feet.

Totals: 117 pts * 14 spc * 7 (<5W) = 11,466

Soap box:

Lots of activity, lots of QRN, Lots of fun. My wife
thinks I'm crazy -- spent 2 days building the TX loop
for 160 Meters then only get 1 Contact!!!

Well, without that 1 QSO on 160 meters, my score would be
1,274 points lower! Thanks Pete/W6ZH for helping me
test the new short TX loop.

And thanks to Alan/KB7MBI who sent me the article. (I have
modified the feed method).

This antenna is very lively. I call him sparky. And if
anyone doubts the HIGH Voltages in a tuned Multi-Turn
loop with 5 Watts input, I can give you a demo!

Never blow dust toward a TX Capacitor while running power!
BZzzzzzTTTsnp.snp...snp.ssssss....

I'm allllll-Right, I'm allllllllll Right! (Uncle Billy, from

"It's a wonderful life")

72

P.S. What next after the Hoot Owl? <grin>;
The NC-Zombie Test: 0-Dark-30 and 2 hrs long.

--OR--

maybe the "Spring Chicken"? For early birds?
0400 Local time 2hr sprint... errr, not a
sprint, more like a crawl....

--

72, Ed, WE6W/qrp CW ONLY; Proud Member: QRP-L/ARCI/Norcal/ARS/AR
<http://www.qsl.net/we6w> (Enjoying Ham Radio every day.)

Date: Tue, 26 May 1998 14:09:21 -0400
From: Sam Billingsley <SBillingsley@usaninc.com>
To: "GQRP-list (E-mail)" <qgrp-l@blacksheep.org>, "Qrp-L (E-mail)" <qrp-l@Lehigh.EDU>
Subject: [11805] Trouble Finding Match Using LDG Tuners
Message-ID: <21E06269B00ED111BE9B00805F6D0FA326B0E5@MAILSERVER1>
MIME-Version: 1.0
Content-Type: text/plain

I have both the QRO and QRP LDG Auto Tuners and like them very much. My home station is a 120 ft Inverted L with 1/4 wave counterpoise for each band. Either tuner quickly finds a match on any band from 40 -10 mtrs on the home antenna. After reading the following I think I'm just lucky with the home antenna.

Problem:

When I'm portable I usually have a much shorter piece of wire for the antenna 20-40 ft but usually try to have a 1/4 wave wire counterpoise regardless of how I have to fit it into the surroundings. My tune up procedure is the same using my INDEX QRP+ at home or portable. I put the tuner in AUTO and key the dash on the keyer until the lowest SWR is obtained. Sometimes with the very short wire antennas the tuner software will search for the match quite a number of seconds and if a less than 3:1 cannot be found it simply locks up in tune mode. I can usually go in manual mode and find a match that's less than 2:1 but it takes a while to find it. In manual mode you can change the CAP and /or IND settings by pulsing the toggle switches (on QRP model) or push buttons (on QRO model) keying the TX with a keyer DASH and check the SWR readings.

Solution:

I think I stumbled on the solution to my problem and maybe yours. In auto mode the tuner is constantly looking to make sure that the SWR is less than 3:1 and if it sees higher it will automatically try to find a better setting. When you key the TX using your KEYS depending on the WPM speed the TX will key down for the DASH length and then go off. If the tuner software is still searching it may change the settings during these off periods and miss the proper one. I don't know how the software algorithm works but this may explain why sometimes the tuner never finds a good match when using the rig's keyer. It's sort of a roll the dice situation. But by manually keying the TX with a constant ON "key down" situation the tuner finds the best setting quickly and you're in business. I had to plug in a manual key just for the tune up activity. Its got to be a BIG savings on possible RF AMP damage during the previously extended tune-up periods. More importantly the auto tune with the manual key down will definitely find the best and quickest match.

Bottom Line:

Don't give up on these great devices if you're experiencing irregular results until you try the continuous or constant ON "key down" mode during the tuning period.

Sam Billingsley AE4GX e-mail: sbillingsley@usaninc.com
Atlanta, GA

Wire (Inverted L), Butternut Vert, AEA IsoLoop, Parking Lot Portable
Vertical(PLPV), LDG Tuners

QRP+	HW7	HW8	HW9	NorCal 38S	Pixie2
NORCAL 2210	MI-QRP 1567	QRP-L 1033	ARCI 9356	AKQRP 308	
GQRP 9660	ARS 269	NOGA	CQC 454		

Date: Tue, 26 May 1998 14:10:01 -0400
From: "Heron, George" <G.Heron@dialogic.com>
To: QRP-L <qrp-l@Lehigh.EDU>
Subject: [11806] Introducing the "Rainbow Antenna Analyzer"
Message-ID: <DC98876F9BBBD111A5F900A02461FF13969016@mailnj.dialogic.com>
MIME-Version: 1.0
Content-Type: text/plain

Hi All,

I've uploaded a major new project to the Member Projects section of our

NJ-QRP website. It's called the "Rainbow Antenna Analyzer" ... a project collaboratively done by Joe Everhart N2CX, Clark Fishman WA2UNN and myself (N2APB). We presented it at the FDIM QRP Symposium at Dayton last weekend and a comprehensive article was printed in the FDIM Proceedings. We also have our Antenna Analyzer article scheduled to be in the next QRP Quarterly in August.

You can see some of the detail and diagrams during the interim up on the website: <http://www.njqrp.org/mbrproj/analyzer/analyzer.html>. We also have a link to this from our our home page.

Hope you enjoy looking over this project ... we think it's really pretty cool!

72,
--George Heron, N2APB
g.heron@dialogic.com in Sparta, NJ

Date: Tue, 26 May 1998 11:04:30 -0700 (PDT)
From: KC5TJA <kc5tja@topaz.axisinternet.com>
To: Frank G3YCC <g3ycc@g3ycc.prestel.co.uk>
Cc: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>
Subject: [11807] RE: DC receivers in the news !
Message-ID: <Pine.LNX.3.96.980526110322.14276B-100000@topaz.axisinternet.com>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

> I would be very happy to include a translation on my web site if this
> was possible?

I definately would love to see how a doubling mixer works... :) If you can, please let us know if and when you get that translation.

=====

KC5TJA/6		- TEAM DOLPHIN -
DM13		Samuel A. Falvo II
QRP-L #1447		http://www.dolphin.openprojects.net

Date: Tue, 26 May 1998 13:45:31 -0400
From: "Vincent Ferme" <vferme@sprint.ca>

To: <PGSPersEng@aol.com>, "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>
Subject: [11808] Re: Batteries: NiMH worth the extra \$\$
Message-ID: <008e01bd88ce\$14e0cfc0\$4a1105d1@frsswilap04284.callnetcanada.com>
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

Paul and Group,

Based on my experience using a NiMH battery with a camcorder, I will say the price premium is worth it.

With a 90 minutes NiCd battery I was getting about half its rated capacity. With the NiMH I am getting the rated capacity or close enough.

Don't forget the additional advantages such as no memory effect and you can recharge the battery any time you want, no need to fully discharge it before recharging.

73 de Vince, VE3VFN.

-----Original Message-----

From: PGSPersEng <PGSPersEng@aol.com>
To: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>
Date: Tuesday, May 26, 1998 12:53 PM
Subject: Batteries: NiMH worth the extra \$\$

>Not exactly QRP related, but I'd like to hear the wisdom of the group.
>
>I need to replace my HT battery. There's a 30% to 50% premium for NiMH
>batteries compared to NiCd models. I've always had bad luck with NiCd's
(OK, I
>abuse them), but are NiMH models worth the extra bucks?
>
>Thanks,
>Paul, AA1MI
>

Date: Tue, 26 May 1998 13:38:13 -0500
From: John Bohnert <johnb@elmhurst.edu>

To: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>
Subject: [11809] Scope & Probes
Message-ID: <356B0C15.EA653B6B@elmhurst.edu>
Mime-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Recently I gained access to a Tek 453 scope in excellent condition...no manual or probes. I have the address posted sometime ago on QRP-L where I might be able to order a re-print of the manual for this model. Until I find a manual, I really don't "know" what I have sitting on my bench in terms of general specifications.

While I have read much about probes I must admit being overwhelmed at this point...in terms of all the options. I am interested in a "general purpose" probe for use by a very novice QRP experimenter. I would like to be able to use the scope along with the construction of my SW 40+ (Elmer 101) project.

Mouser has a 1X and 10X probe set for around \$57 in their most recent catalog. I have tried to find the specific ITT/Pomona probes mentioned by Paul (NA5N) in his QRPp series on the 'scope, but cannot locate...although I did find "other" ITT/Pomona models while surfing the net, unfortunately without any details regard specs.

Your help and suggestions in the form of a direct response will be appreciated by all readers of QRP-L!

Looking for you on 10 meters.....

72
John N9KW QRP-L #1257
Elmhurst, IL

Date: Tue, 26 May 1998 14:47:58 -0400
From: Joseph Trombino jr <joebarb@wilmington.net>
To: QRP-L@Lehigh.EDU
Subject: [11810] F.S. OHR-400 & TEK O'Scope
Message-ID: <3.0.1.32.19980526144758.00685b98@wilmington.net>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

Hello Fellow QRP'ers:

I have for sale the following items:

OHR-400 4 band superhet transceiver-full 5 watts minimum output on all bands includes built-in OHR keyer.

DD-1 digital readout/frequency counter for the OHR-400

Both of these units are in as new condition, will ship for \$350.

Also have a Tektronix 2213 dual trace, solid-state 60Mhz scope, includes original TEK manual, pouch with TEK probes and front panel cover. Some paint wear on cabinet but front panel is in excellent condition. This scope works great and is a good scope for bench or portable use, will ship for \$350. Cashier's check or U.S. Postal money order please. If interested, please respond via email or call me at 910-270-3184 for any additional info required.

Cheers and 73, Joe W2KJ (North Carolina)

Date: Tue, 26 May 1998 11:47:18 -0700
From: "Dasher, Mark" <DasherM@IRWIN.ARMY.MIL>
To: "'Low Power Amateur Radio Discussion'" <qrp-1@Lehigh.EDU>
Subject: [11811] CQ WW WPX CW Contest
Message-ID: <c=US%a=_%p=ARMY%l=IRWEXCH2-980526184718Z-8201@irwin-exch2.army.mil>

All,
My daughter and I plan to participate in our first contest. Could someone send me what a typical exchange is like? When you send the RST and sequence number, are they together - ie 59901 - or separate - ie 599 01? Also, if I send CQ, is there an agreed ending or just CQ TEST?

Thanks for the help and sorry for the bandwidth.

73, Mark KF6LUD

Date: Tue, 26 May 1998 11:47:05 -0700 (PDT)
From: John Foote <w3gx@yahoo.com>
To: qrp-1@Lehigh.EDU

Subject: [11812] Petition for Amateur rulemaking now before FCC
Message-ID: <19980526184705.724.rocketmail@send1a.yahoomail.com>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii

You probably have noticed that we now have an extremely grave threst to amateur radio that needs our attention.

Cooments are due at the FCC by June 1 on the Land Mobile Communications Council's petition for rulemaking that would, for all practical purposes, remove amateur radio from the UHF band. (A summary of the petiton and its full text are available by going to the ARRL website.)

These people are serious and they play for keeps. And the LMCC is made up of some pretty important user groups, many of which are the same outfits for which amateur radio has traditionally been a tremendous help in cross-jurisdictional and geographically diverse emergencies.

One of two things is going to happen: either we are going to beat this threath back (if we can find some friends who are powerful and interested in our wellbeing) or the groups in the LMCC who have depended upon amateur radio in the past had better think of a good way to use those UHF frequencies. If this goes through I predict enough bitterness in the ham community that an "OK you're so smart, do it yourself" attitude will prevail. It may be the end of community service on any scale resembling what we've seen in the past.

I hope you'll take time to read the LMCC petition and send a formal comment to the FCC. I hope we can find a powerful ally to help pour water on this fire.

We have a right to our spectrum because (unlike the common carriers and large radio users in this country and, yes, LIKE the broadcasters) WE use radio in the ligitimate pursuit of our free speech rights. It is our claim to the frequency bands and, I think, a crucial one. We ALSO provide a resource to the country and community by making our skills, discipline and not inconsiderable investment in this pursuit freely available we they are needed most and there is nowhere else to turn.

The slogan on the tee shirt I saw months back really does say it all: "When all else fails ... Amateur Radio."

==

72 es 73 de W3GX

John Foote

Ashburn, Virginia near Wash. Dulles Int'l. Airport

DO YOU YAHOO!?

Get your free @yahoo.com address at <http://mail.yahoo.com>

Date: Tue, 26 May 1998 13:21:10 -0600 (MDT)
From: Paul Harden <pharden@aoc.nrao.edu>
To: John Bohnert <johnb@elmhurst.edu>
Cc: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>
Subject: [11813] Re: Scope & Probes
Message-ID: <Pine.SOL.3.91.980526131101.9449A-1000000@zia>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

On Tue, 26 May 1998, John Bohnert wrote:

> Recently I gained access to a Tek 453 scope in excellent condition...no
> manual or probes.

> While I have read much about probes I must admit being overwhelmed at
> this point...in terms of all the options. I am interested in a "general
> purpose" probe for use by a very novice QRP experimenter. I would like
> to be able to use the scope along with the construction of my SW 40+
> (Elmer 101) project.

A 1X/10X probe with a 50MHz or so bandwidth will be fine, which most
probes will satisfy. See below.

> Mouser has a 1X and 10X probe set for around \$57 in their most recent
> catalog.

TechAmerica also has two sets of probes that are fairly cheap. I can't
find their catalog here at work right now ... but the probes that came
with their ProTek scope are ProTek model PP-80, and I *think* they were
about \$35 each sold separately. They are a 1X and 10X probe, selectable
by a slide switch on the probe, with the following specs:

1X position: 72pF input cap., 15MHz bandwidth, 237 ohms internal res.
10X position: 17pF 60MHz 9 Meg ohms

It also comes with an alligator ground lead (removable) and a clip-on pincher probe tip. The slide switch for selecting 1X or 10X also has a REF position (for ground), which is also useful for quickly determining the 0V trace reference.

TechAmerica is at 1-800-877-0072 (orders) or 1-800-613-7080 (questions). I recall one set of probes in their catalog was around \$39, and another around \$59. I'd call and find out if the PP-80 is the \$39 or \$59 set, and if the more expensive, the specs above will help you to determine what you might be sacrificing with the cheaper pair.

GL, Paul NA5N

Date: Tue, 26 May 1998 15:25:06 -0400
From: Hank Kohl K8DD <k8dd@contesting.com>
To: DasherM@IRWIN.ARMY.MIL, "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>
Subject: [11814] Re: CQ WW WPX CW Contest
Message-ID: <3.0.1.32.19980526152506.007486c4@192.0.0.1>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

At 11:47 AM 5/26/98 -0700, Dasher, Mark wrote:

>All,
>My daughter and I plan to participate in our first contest. Could
someone
>send me what a typical exchange is like? When you send the RST and
sequence
>number, are they together - ie 59901 - or separate - ie 599 01?

Mark....

Typically it is sent all together. Most likely your example of 59901 would be sent as either 59901 (599o1) or 5nnt1. You will encounter what is called "cut numbers" - a subject that was absolutely beat to death on the cq-contest reflector last year. My typical exchange out of the NA logging program would be "tu 5nnt1" - no k at the end. The other station knows that when you quit sending, there is no more. And don't repeat anything unless asked!

Cut numbers are:

t (or o) 0
a 1
n 9

In North America the most you will hear is the t (or o) for 0 (zero) and n for 9. A lot of European stations use a for 1 (one).

So if you get a report of 5nntan you just got a 599019.

>Also, if I
>send CQ, is there an agreed ending or just CQ TEST?

CQ TEST DE KF6LUD K is fine
A lot of stations - generally those with lotsa watts going out the coax
- will send TEST KC1XX (pause) TEST KC1XX etc

>
>Thanks for the help and sorry for the bandwidth.
>
>73, Mark KF6LUD

73 and good luck in the contest
Hank K8DD

*/ Hank Kohl K8DD k8dd@contesting.com
*/ ARRL TS (k8dd@tir.com)
*/ MI-QRP - Vice Pres. QRP-ARCI - Director
*/ G-QRP ARRL/LM QCWA/LM QCAO/LM

Date: 26 May 1998 14:33:52 -0500
From: "rohre" <rohre@arlut.utexas.edu>
To: qrp-l@Lehigh.EDU
Subject: [11815] list clutter: Test URL's b4 post
Message-ID: <n1315929197.69793@msmailgw1.arlut.utexas.edu>

Hello gang,
Those of us like Mel on the UK side of the pond and myself, take the digest.
When you get the postings all at once, some things really jump out which could help all the list enjoy the postings.

Please, when you want to share a URL for the web, send email to yourself FIRST with it, and TEST it from that URL, before you post to the LIST to avoid repeated repostings to correct errors.

The requoting is creeping up again, maybe following the Sunspot curve?:-) Goes much faster if we don't have to reread the post.

If you forward something from elsewhere, delete all the routing info, we only need your message/adr., with the essence of the information summarized, or a portion copied to pass on the essentials. Especially stuff from the Newsgroups---some of us are over here to avoid the low SNR of the Newsgroups. In the spirit of QRP--do more with less! Thanks!
72, Stuart K5KVH

Date: Tue, 26 May 1998 15:49:26 -0400
From: "Karty, Steven" <kartys@ncs.gov>
To: "'qrp-l@Lehigh.EDU'" <qrp-l@Lehigh.EDU>
Subject: [11816] Program for laying-out perf board?
Message-ID: <CFF17B766475D111B50900204804F0DF7F320A@rbmail100.chamb.disa.mil>
MIME-Version: 1.0
Content-Type: text/plain

At the FDIM QRP Symposium last week, someone mentioned that there is a software program for laying-out standard Radio Shack-type perf boards (the printed circuit boards which have been pre-etched for standard IC patterns and extra interconnecting tracks). Unfortunately, they couldn't recall any specifics, like the program's name or where I might be able to get a copy. Hopefully, this won't be another wild goose chase (like the warehouse full of brand-new WW-II Jeeps for only \$50 each). Can anyone give me any hints?

TNX es 72, Steven Karty - N5SK

Date: Tue, 26 May 1998 15:50:06 EDT
From: MNHopkins <MNHopkins@aol.com>
To: qrp-l@Lehigh.EDU
Subject: [11817] Hootowls lack Royal lineage
Message-ID: <889bf926.356b1cef@aol.com>
Mime-Version: 1.0
Content-type: text/plain; charset=US-ASCII
Content-transfer-encoding: 7bit

We of the Royal Order of Hootowls (ROHO) stoop to point out that the posts refering to "Hootowl" have nothing to do with our sacred order.

Reaching back in time to the fabled days of 6M AM Telephony, we are those who have documented a 60+ min roundtable QSO with others of our, er, flock.

Thus we are antethical to and regard as anathma the practice of "579 QRZ ?" operating style blasphemously usurping our name.

Simply stated, for the apparent audience, "You'se wanna be a real Hootowl you gotta get on 50.400 and commit yerself -- ain't no hit-n-run kinda thin', ya know?"

de HOOTOWL R-40

Date: Tue, 26 May 1998 16:17:24 -0400
From: "Alan Slusher" <aslusher@erols.com>
To: <pharden@aoc.nrao.edu>, "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>
Subject: [11818] Re: Scope & Probes
Message-ID: <003d01bd88e3\$4d841f20\$1832accf@oemcomputer>
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

>
>TechAmerica also has two sets of probes that are fairly cheap. I can't
>find their catalog here at work right now ... but the probes that came
>with their ProTek scope are ProTek model PP-80, and I *think* they were
>about \$35 each sold separately. They are a 1X and 10X probe, selectable
>by a slide switch on the probe, with the following specs:
> 1X position: 72pF input cap., 15MHz bandwidth, 237 ohms internal res.
>10X position: 17pF 60MHz 9 Meg ohms
>
>It also comes with an alligator ground lead (removable) and a clip-on
>pincher probe tip. The slide switch for selecting 1X or 10X also has a
>REF position (for ground), which is also useful for quickly determing
>the 0V trace reference.
>
>TechAmerica is at 1-800-877-0072 (orders) or 1-800-613-7080 (questions).
>I recall one set of probes in their catalog was around \$39, and another
>around \$59. I'd call and find out if the PP-80 is the \$39 or \$59 set,
>and if the more expensive, the specs above will help you to determine what
>you might be sacrificing with the cheaper pair.
>
>GL, Paul NA5N

Just to add to what Paul said:

After ordering the Protek 6502 Scope, I got hold of an older Hitachi Model without probes (previous unstoppable order - hi), and tried to order the probes described above from TechAmerica. Turned out they were out of stock but they sent me substitutes as follows (01 May '98):

Info from spec sheet:

Brand: Velleman Components

Model: PROBE60S IEC-1010 Catalog No. 91-3451

Clips and leads appear to be the same as described above, except no ref. position on the x1-x10 slide switch.

x1 position: 46pf input capacitance (plus scope capacitance)

15MHz bandwidth

1Mohm input resistance (scope input)

27 ns rise time

x10 position: 18 pf

60MHz bandwidth

10 Mohm input resistance when used with scopes with 1

Mohm input

5.5 ns rise time

Working voltage at both switch positions 600vdc incl peak AC derating with frequency

Price: \$19.95 ea, plus shipping and handling (\$39.90 plus \$4.50 shipping and handling to MD for two probes).

Hope this info is useful.

Cheers,

Alan

W3/ V31FA

Rockville, MD

Date: Tue, 26 May 1998 16:49:11 -0400

From: Zack Lau <zlau@arrl.org>

To: qrp-l@Lehigh.EDU

Subject: [11819] List of 10 watt SSB rigs

Message-ID: <356B2AC7.1DB@arrl.org>

Mime-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Atlas 110
Dan's Small Parts 40M Centennial (5 to 8 watts)
Elecraft K2 kit (available real soon now)
Kenwood TS 120V
Kenwood TS130V
Kenwood TS-660
MFJ 9400 Series (12W)
Norcal Cascade (75M, 5W on 20M)
Yaesu FT-301SD
Yaesu FT-7 (20W)
S or V versions imported from Japan (though one has to watch out for
Japanese band limits wired into the radios)

VHF and above rigs:

VHF Icom 211, 251, 505, 551, 451, 1270, 1271
Yaesu FT-480, FT-680, FT-690, FT-726, FT-736 (6M, 1.2G)
Kenwood TS-700, TS-790 (1.2G), TR-9000

Except for 1.2 GHz, many of the Japanese rigs are set up to
give you a couple extra watts--thus, a 10 watt rig may put out
as much as 15 watts according to ARRL Lab testing.

Of course, many high power radios can be easily modified by removing
the existing power amplifier, substituting a QRP version, and revising
the ALC circuitry. I think I also changed the directional couplers
in my TR-7 for a flatter frequency response.

--Zack W1VT

Date: Tue, 26 May 1998 22:31:55 +0000
From: "Frank G3YCC" <g3ycc@g3ycc.prestel.co.uk>
To: qrp-l@Lehigh.EDU, gqrp-l@blacksheep.org
Subject: [11820] 10w rigs
Message-ID: <E0yeRkb-0004Kt-00@hen.scotland.net>
MIME-Version: 1.0
Content-type: text/plain; charset=US-ASCII
Content-transfer-encoding: 7BIT

>From a JA visitor to my web site:

(don't know what the odd characters are, probably in his language?)

Japanese Phone class (4th class) is limited 10W $\text{B}\text{f}\text{o}\text{f}\text{n}(\text{J HF}$.
In Japanese market, you can buy 10W HF transceiver with easily. Most
of Japanese HF model have $\text{B}\text{f}\text{a}(\text{J 10W JA type}$. ICOM one is type S,
Kenwood one is type V and Yaesu one is S. (ex: FT-920S = 10W) Many
QRP'er visited Japan and bought 10W new HF transeiver at Akihabara.
For example, IC-746S(10W $\text{B}\text{f}\text{o}\text{f}\text{n}(\text{J HF and 20W on VHF) \198.000,$
FT-847S (10 $\text{B}\text{f}\text{W}(\text{J on HF and 20W 6m-70cm}$), also IC-706mk2S, TS-570V
etc.... But its transmit range is limited Japanese HAM band. You should
remember it, if $\text{B}\text{f}\text{y}\text{f}\text{o}\text{f}\text{u}(\text{J buy it in Akihabara}$. For example, 40m
band TX $\text{B}\text{f}\text{i}\text{s}(\text{J limited 7000-7100}(\text{HF range is able to modify by}$
your own, cut some 'diode on CPU matrix'.), 2m 144-146MHz (VHF is
impossible to TX modify, as the rom is programmed to lock TX VCC). I
have IC-729S (10W , now modified 300mW - 5W maximum). I like it. Thank
you.

--73--

Frank G3YCC G QRP 042

email: g3ycc@g3ycc.prestel.co.uk

QRP web Site: <http://www.homeusers.prestel.co.uk/g3ycc/>

Packet: G3YCC@GB7HUL

Date: Tue, 26 May 98 11:49:20 HST
From: mike@krypton.nmr.Hawaii.Edu (Mike W. Burger)
To: qrp-1@Lehigh.EDU
Subject: [11821] FD/Hotel Camping
Message-ID: <9805262149.AA13008@krypton.nmr.Hawaii.Edu>

We will have another QRP ARRL FD effort, hopefully more successful this
year than last. Last year was my first QRP camping effort and several
since then have been more successful. So there will be at least two
QRP FD stations in Hawaii , plus at least three QRO FD stations.

Tomorrow I am off to the Big Island (Hawaii, Hawaii) for a conference,
and I am going to try to drag along the TenTec and some antenna supplies.
I have made a nice carry case for my StakeStick vertical for 20-6 meters.
It is about five feet long and 1 1/4 inch PVC pipe. It has LOTS of
markings on it for the airline! and they insist that they handle
"fishing rod cases" up to 12 feet long. It has QSL cards taped to it,
business cards, big signs that say "Contains: Antenna Parts", but it
still looks like something else. I should have never drilled that small
vent hole in one of the pipe caps, it just adds to the overall appearance
as something other than an antenna parts case. So I have my fingers crossed.

Saturday we are going hiking and I am going to try to stop off at the first opportunity to raise a station and wait for the others to come back my way after their energetic out and back hike. For the rest of this week, I hope to have a few experiments in what you can do with wire and get away with it at an upscale \$300 a night hotel (I ain't paying out of my own pocket is why we are staying at such a place), and this is the discount rate. Lucky you live Hawaii... Maybe the TenTec will raise someone other than the night manager.

"Ahem... Sir, what exactly are you doing with that slingshot??"

AH7R - Mike Burger, University of Hawaii at Manoa, Dept. of Chemistry
HI-QRP #28 - QRP-L #1053 - FISTS #3225 - BL11ch - Honolulu County

Date: Tue, 26 May 1998 18:50:21 -0400 (EDT)
From: "J. Skalski" <jskalski@acsu.buffalo.edu>
To: PGSPersEng <PGSPersEng@aol.com>
Cc: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>
Subject: [11822] Re: Batteries: NiMH worth the extra \$\$
Message-ID: <Pine.GS0.3.96.980526184628.6781A-100000@xena.acsu.buffalo.edu>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

I got NiMH batteries for my motorola flip...(they are rated at 1100maH) at dayton for \$15 each.
They don't have any memory effect. I think they are an improvement over NiCads.
Too bad Ham related items don't have cheap batteries.

73,

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Date: Tue, 26 May 1998 22:51:14 +0000
From: Ed Loranger <we6w@qsl.net>
To: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>
Subject: [11823] High Voltage QRP Spiral Loop Antenna!/WE6W {LONG}
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Hi Folks you may delete if uninterested in a successful
160 Meter short TX loop antenna 4 feet high, 3 feet wide,
and 6 inches deep.

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Meet Sparky, 160 Meter loop antenna that works!
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Ok. Thanks go to Alan/KB7MBI for alerting me to a 160
meter Transmitting loop -- "The Table Topper 160-Meter
Loop", November 1997 issue of '73 Amateur Radio Today'.

Briefly, the article describe a 6 turn spiral wound
antenna 4'x3'x6". Unlike most "Box loop" style antennas,
all of the wire is in the same plane, i.e. each turn of
the loop is shorter than the previous. The article has
the loop tuned with a TX style variable capacitor which
has 300 pF/8 KV caps in series with each wire. The variable
capacitor is a dual stator and Common Rotor. The Rotor
may be grounded, but is shown as only common. Coaxial
feed is via 'Common' and thru a 150 pF 8KV cap connected
to junction of the loop outermost wire and one section
of the variable capacitor. This is a VERY HIGH impedance
point.

PROTO I: (Saturday A.M.)

I used one 5' seasoned wood, circular, about 2" diameter
for the vertical support. Another 5' section was cut in
half, giving me TWO 30" sections of wood. These 30" sections
were then affixed horizontally at 8 inches below the top for
one piece, and the second affixed lower on the pole by 36 inches.

I took 6 section of 7 inch long, 5/8" diameter pvc pipe and cut
deep 'V' notches every half inch from the outside edge. Six
notches. I provide room at each end of the pipe for self drilling
screws to hold the insulator thus created. Placement of the
PVC sections were at each end of the two horizontal bars, the
very top of the vertical rod, and just below the lower horizontal
arm. Thus configured, the resultant wire stringing results

in a hexagon shape, slightly taller than wide.

Wire is strung starting at the bottom of the pole, counter-clockwise, and using the outermost 'V' notches for anchoring the first turn. I used 14" long heavy duty wire-ties to slide into the pvc sections (6) such that the wire could be held in the notch. The wire tie is not tightened in the usual manner until all wire is strung. Continue winding until all of the .085 lambda (Wavelength) of wire is used up. Secure all wire ties and tie a NE-2 light bulb to the outermost ant. wire. Do not short the NE-2 leads. The NE-2 was my idea and lights up at 3 watts output, 1/3 aglow at 5 watts, and at 50 watts is about to explode!

Connect each antenna lead to its respective Stator on the dual section capacitor with common Rotor. The Capacitor should be rated for high voltage -- You'll see. I recommend minimum plate spacing while closed to be at least 1/8 inch for QRP work. Identify the antenna/capacitor connection using the outermost antenna wire. This is the feed point. Connect the 150 pF/8 KV cap there and you are ready to test.

Using an external portable receiver and remote grid dip oscillator at the design frequency, peak the GDO signal on the rcvr. Move the receiver close to the loop if you have trouble picking up the signal. Once you find a peak on the receiver, you now know the loop is tuned to the correct frequency and the variable capacitor should not be touched.

Turn on the transmitter tuned to the design frequency. (Turn off portable receiver <ouch! Loud!>. Supply 1 to 3 watts of power, just enough to check the VSWR on you SWR Meter. WHAT?, You say? Yup! I also had trouble feeding the loop at the high voltage node. It don't load up.

REGROUP AND MODIFYING THE FEED:

I immediately went to a small input circular loop for the feed. Starting with about 4 inch dia. loop (very small!). I measured vswr. I continued increasing the size of the small loop until VSWR was below 1.5:1. Now I used my old Johnson Viking II rig. So success occurred when I had a minimum Plate current (dip) and VSWR = 1.5 or less to 1.

I was successful with a final feed loop circumference of 48 inches (approximately 1/100 wavelength) which is about 1/10th the length of the antenna wire used in the loop. Also, the circular feed resulted in 1.4:1 VSWR at best. Later I found

that a TRIANGULAR feed (loop) provided about 1.1:1 match. Square and circular feedloops and even an HOURGLASS-shaped feed I made, all with VSWR's about 1.5:1. The HOURGLASS feed was an abstract Idea I had. I found it lowered the antenna 'Q' ever-so slightly but made tuning the rig a little easier. But in the end, a triangular feed, like a pyramid -- widest at the bottom, ended up best. (However: I worked W6ZH with the Hourglass feed)

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NOTE ON LOOP FEEDING: Polarity of the feed is important -- If in doubt, measure the VSWR, reverse the input leads and measure again. The feedloop HOT lead is the lead closest to the exit location of the innermost spiral antenna wire. (This is the Opposite of the Direct Feed center connection)

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PROTO I RESULTS: Heard my first-ever activity on 160 meters. N7DM calling CQ on 1807 KHz at 10 PM local time. SSB ragchews on 1854 and 1862.... I was stoked. But time for bed. I had a fun and productive Saturday.

PROTO II: (Sunday A.M.)

First I measured all of the loop demensions, logged the data, and verified tuning range etc. It was time to re-build.

After walking around the house and playing with the kids, (I told them the loop antenna was a "Kid Finder" :) :), I replaced the outer antenna wire with 44 Feet of #12 AWG solid copper wire with blue outer sheathing, 600 Volt rating. The inner loop was red #12 AWG wire, same stock. I was careful to use needlenose pliers to ensure wiring was solid. I then routed the High-Voltage wires thru PVC pipe affixed at the bottom of the loop. I routed the feedline safely away from the high voltage wires and into black flexible pvc tubing. All was secured at the base of the antenna. The heavy antenna wires were attached to the tuning capacitor and left to hang freely for now.

FINAL TESTS: As advertized, this loop does IN-FACT, and totally unbelievable to me, but I measured it, have directivity AND Front/Back ratio. Yes, off axis nulls are excellent and measured signal levels on a FS meter show over TWICE the signal to the front than the rear. I measured 1.5 on the FS meter at 13 Inches from both sides and Rear, but the reading was measured a full 29 inches from the front of the antenna. I know this is near-field, maybe someone else wants to test at far-field.

Tuning Range of Proto I: 1.35 to 2.6 MHz

Tuning Range of Proto II: 1.6 MHz to 2.3 MHz.
Tuning Range of Proto III: 1.75 - 2.1 MHz (TBA)

Summary: I like this antenna.

Hey, it is small, 2xQRP at 900 miles confirmed! It has some very HIGH VOLTAGE points when transmitting and
----- YOU ARE RESPONSIBLE -----
for taking appropriate safety precautions.

OK, :) It's not that dangerous, but it does spark if over driven, dusty, or you've got low voltage parts!

I'm on 160 Meters finally. And I hope you give it a try. My next loop (Proto III ???, will probably use copper tubing for all the parts. Some 5/8" feedloop and 1/4" icemaker tubing for the spiral antenna.

To scale the antenna I recommend: .085 wavelength of wire for the spiral, and .0085 wl for the triangular feed loop. Make a frame that can hold 6 turns for the spiral and you are done.

I hope this practical report is useful. I will add this to my webpage soon.

Best Hamming to all,
Ed Loranger WE6W

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72, Ed, WE6W/qrp CW ONLY; Proud Member: QRP-L/ARCI/Norcal/ARS/AR
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End of QRP-L Digest 1103

